CHANGE IN IDENTITY OF SAUDIS' BUILT ENVIRONMENTS
THE CASE OF JEDDAH

Yasser Ahmed Adas

Thesis Submitted for the Degree of
Doctor of Philosophy in
Architecture

Heriot-Watt University
Edinburgh College of Art
Faculty of Environmental Studies
Department of Architecture

Edinburgh
February 2001

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ACKNOWLEDGEMENTS

First I would like to express my spiritual, emotional and intellectual debt to Allah, whose persistent guidance and inspiration gave me the ability and dedication to complete this work. I pray that his continued blessing will help me implement my ideas expressed here. Next, it is pleasure to acknowledge those people whose this work has been completed with their support, Co-operation and insightful suggestion.

In particular, I am grateful to my supervisor Dr. F. Ujam, for his advice, criticism and encouragement which have been very educational and useful. His insistence on through study helped formulate and refine the scope and structure of the study. I am very grateful to him for his valuable comments and guidance through discussing my writing up to the completion of the thesis.

Similar thanks go to Mr Daniel de Iongh for his help in reading through and correcting my scripts. I would like also to thank all other members of staff in Edinburgh College of Art who made contributions through their valuable discussions and advice. I am grateful to all my friends and colleagues in the Centre of Research and Studies in Architecture and Urban Design for their help and reflections which sustained me during this research. I would like also to express my gratitude to King Abdul Aziz University, Jeddah for the financial support which made this study possible.

I am also grateful to my family and friends in Saudi Arabia for their support and encouragement. Finally my deepest gratitude goes to my wife for her patience and companionship.

Heriot-Watt University
Edinburgh

Abstract of Thesis Form

(Form to be completed in block letters)

Surname	Forename(s)	Matriculation Number
ADAS	YASSER AHMED	96/E00585

Postgraduate Study (tick)	PhD	✔	MPhil		MSc	

Thesis Title

CHANGE IN IDENTITY OF SAUDIS' BUILT ENVIRONMENT
THE CASE OF JEDDAH

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Abstract

Identity is an essential human demand for life. It is with the identity that human beings introduce a sense of meaning into existence. It can be demonstrated through many different human expressions. The built environment, however, is the main medium discussed in this research. Nevertheless the research traces the identity and the impact of its change in both physical and non-physical environments. This is to understand the expression of identity in Jeddah, as a case study that represents the Saudi community and that has been exposed to drastic changes since the 1950s which stretched the gap between the traditional and the modern. The main objective is to construct a means to evaluate the built environment according to how it conveys, interprets, expresses, enhances or confuses Saudi identity.

The research follows a quantitative-qualitative approach in investigating the relationship between the identity and the built environment. This is conducted through a theoretical enquiry which addresses a definition of identity and its elements, natural environment, underlying factors and built environment, and an empirical investigation through the case study (Jeddah) which will include a documents review to trace the change and a questionnaire that aims at investigating Saudis' perception of their environment as a medium of presentation for their identity.

The study therefore, probes the concept of identity in general, aiming to develop a theoretical understanding towards considering it in architectural and planning practices. On the other hand the research concentrates on Jeddah, to provide feedback for architectural design and planning that accommodates a Saudi identity.

See reverse side for notes

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INTRODUCTION

1.1 Prologue

Before the discovery of oil in Saudi Arabia most of the population lived in small traditional rural settlements with a subsistence economy dependent on agriculture and pasturage. A few urban centres existed, such as Makkah Al-Mukarramah, Al-Madenah Al-Munawarah, Jeddah and Riyadh. After the discovery of oil in Saudi Arabia in 1938, the country experienced a major economic boom; this boom had a great influence on the physical and social structure of the country. The effects were evident throughout the social, cultural and built environment. Most of the Saudi cities today tend to be similar to each other, and this is now their foremost characteristic. The city of Jeddah, like many others, has changed beyond recognition. There is a feeling now among the Saudis of Jeddah that their new environment has been imposed upon them, rather than created by them. It is a city like many modern cities; instead of representing a place, a tradition and a people, it represents one global historical event. This leads to uncertainty about what is now meant when an individual maintains "I am from Jeddah".

The search for identity is a distinctive feature of human beings. The possession of identity gives meaning to human existence; to know one's identity is a fundamental need of human beings. In its basic form, identity is of vital importance to explain the dual notion of uniqueness and sameness.

Throughout history, people developed many media that express their identity (e.g. language, clothing, hairstyle and so on). The built environment was one important way in which people manifested their uniqueness as individuals and as groups according to the norms of the culture (Rapoport, 1981).

This study is a response to these concerns. It investigates the identity of the built environment in Saudi cities, which has been under drastic change since the 1950s as a result of the economic boom in Saudi Arabia. Looking at many Saudi cities today, two distinctive types of built environment can be easily recognised. One type is the traditional, with all its features intact; the other is the modern built environment, which has followed international ideas and methods. The character of each is very different. This contrast creates unique opportunity to investigate the nature of identity in the built environment and the effect of changes that have taken place on Saudis' perception of their identity.

Identity is *a complex concept, which grows out of a history of changing responses to economic, political and cultural forces* (Sadalla, 1987). The study of identity in this research, therefore, will be guided by several considerations. Firstly, the investigation considers only the Saudi proportion of the population as it is the only sector on society which holds both old and new opinions about the built environment. Secondly, in order to examine the expression of identity in Saudi built environments, various disciplines from different subjects (e.g. anthropology, psychology, geography, planning and architecture) will be considered. Thirdly, the concept of identity will be related to other concepts such as nature and place. Fourthly, identity will be interpreted through social, cultural and national contexts. Finally, the specificity of the case study will be highlighted.

1.2 The Problem

Physical objects give place its uniqueness, which in turn reflects the uniqueness of its inhabitants. Accordingly, we can identify places and people through physical objects. Hough (1990) stated that *each generation has added some features to the built environment such as buildings, streets and trees, which establish the identity of their environment.* Thus, each environment contains distinctive physical objects of a particular heritage, religion, place and time.

This was not always the case. Under certain conditions, when external influence is strong, all processes of decision and development are affected. The ways of expressing identity change. People under these conditions search for new ways to interpret and express their identity (Rapoport, 1981). A century of dramatic and universal change has left many facing a dilemma between reproducing the local tradition or joining the universal movement towards the international modernity. Many rural and urban developments of historic significance have come under the pressure of urban growth (Talib, 1984). William (1990) argues that "in the process of economic development and urban population growth during the last two decades, much of the old cities in many Third World countries have been demolished and re-developed. Existing communities have been uprooted. Cities become concrete jungles. If these are the inevitable results of economic development and current planning theories, serious re-thinking is needed" (William, 1990, pp 20–21).

The identity of buildings and places is not just important; it is a critical issue. One of the criticisms of the abstraction of modern architecture and the use of industrial and mass production is that their components do not reflect the diversity of culture. It has become increasingly difficult to determine the identity of places and buildings as a result of

introducing prototype buildings, which can be constructed anywhere and everywhere. Therefore, planning or building according to this principle has led to the loss of the original sense of place and consequently weakened the relationship between people and their environment. At present, accordingly, in many places it is not easy to recognise where you are due to this lack of distinctiveness. As a result, architecture is losing its ability to express the string of aspirations and values of successive generations of urban dwellers.

Recently, there has been a growing belief that architecture should be referred to in the understanding of people's personalisation and identity (Benswessi, 1987). The role of architects and planners is then to be reassessed during the course of discussion about the concept of identity in the built environment. In attempting to emphasise identity, solutions have been sought by replicating traditional architecture. However, gradually people have accepted that, although traditional architecture has a distinctive identity, it nevertheless presents functional problems due to socio-economic and technological changes that have taken place in the last few decades and to changes in their lifestyle. It has therefore become clear that the solution is not to replicate traditional architecture. Consequently the question of how to retain a place's identity through a compatible and suitable built environment still remains.

Talib (1984) stated that there has also been considerable change in the living and working conditions of both urban and rural citizens of Saudi Arabia. It is not only the possibility of importing new goods but the basic infrastructure such as new roads, electricity and telephones, which seem directly and fundamentally to have affected lifestyle.

Between 1950 and 1985 the percentage of the population living in an urban environment grew from 10% to over 70% (Al-Ankari, 1989) while the rural population declined. The Saudi government started to create new urban areas and to develop the existing infrastructure with a modern roads network, health care and educational services. All these factors merely served to attract people from rural to urban areas. Within three decades, most of the population was living in urban areas, which has led to a housing problem because of a gap between supply and demand. Talib (1984) argues that the increase in the total population due to the presence of resident-alien temporary workers in the urban centres, combined with the drift of the Saudi population, further exacerbated the need for housing. To overcome this problem, the government has established many housing projects in most of the cities and has encouraged people to develop their own homes by giving them a free land and even giving them lawns with no interest to build.

This growth required a rapid reaction to overcome the housing problem. The solution was a new planning system, which was based on international ideas and methods that ignored the meanings of the existing urban centres that relate people to their environment. This opened opportunities for a variety of architectural styles and features that were unfamiliar to the original Saudi population. The effects were evident in many problematic aspects of the new social, cultural and built environment. Most of the Saudi cities today tend to be similar to each other; this is a particularly noticeable characteristic among newer developments.

The new plans should have taken into consideration the original citizens and environment of each city; they should have been built upon the complex interrelationships between these components. Had they done so this would have preserved the original identity of each city in a way that would have allowed them to retain their distinctive characteristics. This

research aims at investigation into the remains of the old town of Jeddah as a case study in comparison to its current identity.

One of the main objectives of the Saudi government's fifth development plan (1990-1995), was the reduction of the proportion of the non-Saudis in the total population. The idea was to maintain continuity in the society and to absorb the annual increase of 3.7 % in the Saudi labour force. This investigation takes its sample from Saudi residents of Jeddah who have experienced both the old traditional environment and the new modern one as they have become the target of the government's development plans. The non-Saudi residents of Jeddah then will be considered in this research as an influencing factor on the change.

The investigation will then extend to include the new generations of Saudis who only experienced the traditional city either through their parents' memory or in the old quarters of Jeddah which are preserved by the municipal authority of Jeddah.

William (1990) stated that "countries that are undergoing rapid development today need to consciously resist the powerful pressures to internationalise their cultural values and life-styles, especially when they are packaged by indiscriminate consumerism. Once their existing cultural ambience is destroyed, it would be nearly impossible to revive or recreate it. The danger is particularly acute in those rapidly developing economies, which are populated by people with non-homogeneous cultures" (William, 1990, pp 26-27).

However, the built environment in Saudi cities is under the pressure of immediate need. Architects and planners are forced to concentrate on matters of quantity and provision. The identity of the built environment as a consequence is severely affected. One of the effects of

the changes in the built environment of Saudi towns and cities appears in their spatial organisation and overall form. They present the visitor with two distinctive styles: the traditional and the contemporary.

Traditional areas display a remarkable quality of visual richness, social interaction and above all a unique identity, where the physical characteristics of the built environment help support a harmonious society. Moreover, the buildings are mostly arranged according to family ties, and so the sense of identity and belonging are very strong. However, the social life in these quarters did not follow a natural transformation, but was rather put under pressure from the modern areas. This resulted in their evacuation as places of habitation. They are now preserved as monuments which bear witness to the radical change of the city, dead for lack of social life within them. The localities did not understand that preserving the identity of the city does not mean keeping some examples of how buildings once looked, but considering them as the starting point for the next step in urban planning, offering architects an opportunity for creativity.

Contemporary areas look very different from the traditional ones. Looking at the city from a distance one is impressed by its brightness, development and form; by luxurious modern buildings of different shapes and forms, built using up-to-date building techniques and materials. However, after a close look at the city one can clearly see the real essence of contemporary design; it is interesting only aesthetically. Many questions are raised as to its social and cultural value. It seems that every designer has tended to concentrate his attention on the building as if it were located in isolation, paying little attention to the surrounding area (Al-Harbi, 1989).

This lack of continuity between old and new, traditional and contemporary, is one of the issues which threatens the loss of identity within Saudi cities. This mixture of styles creates confusion about the identity of the city and its original inhabitants. One of the questions which arises is whether either the traditional or the contemporary architecture represents the Saudi identity or whether that identity is represented by something else entirely. There is a real confusion here and a great need for the Saudi culture to re-discover its identity.

Moreover, the examples of traditional architecture that exist and are regarded as valuable national heritage are decaying. It is noticeable that many buildings in the traditional quarters have either recently collapsed or are on the verge of collapse. The question is whether to demolish them or renovate them, and if so, how? Is the demolition going to affect the identity of the place positively or negatively? Is repair and renovation sufficient to retain the meaning of these buildings? To answer these questions, it seems that a study of the features that represent the identity of the people is vital to enable the right decisions to be taken regarding the conservation of the traditional quarters.

1.2.1 The Problem Indicators

The confusion of identity in Saudi Arabian urban areas has expressed itself on two levels: the level of the built environment (cities, neighbourhoods and houses) and the personal level (in societies, communities and families). Here we face a dilemma: which one of the two components changed first and how have they influenced one another?

1.2.1.1 The Level of the Built Environment

The contemporary built environment of Saudi cities does not express specific Saudi Arabian characteristics as an Arab Muslim country with distinctive topographical, climatic

and social features. As a built environment it could exist anywhere in the world. Cities have grown very rapidly and the organic urban fabric has been replaced by a new geometrical urban pattern.

If we compare the built environment of any two districts in the city of Jeddah for example, we would have difficulty in distinguishing between them. On a larger scale if we compare the built environment of the city of Jeddah with any other Saudi city, one would find difficulty determining which is Jeddah, as they share many urban features such as transportation systems, tower blocks, building technology and building materials. The same analogy could be applied on a universal scale, i.e., between Jeddah and many cities in the world. Ideas of planning and urban forms genuine to traditional Saudi cities are not clearly seen. In all Saudi cities new housing schemes have emerged which have replaced the traditional design of houses. Occupants nowadays have to adapt themselves to the new dwellings. The thousands of new dwellings that have been built have imposed a new urban structure on the original one. The typical expression of the new design is the two storey building set in an asphalt landscape broken by mosque minarets and blocks of flats. Streets are laid out without a clear idea of the buildings that are going to line them. Every element of the city is treated separately without visualising its environment. The process of decision making is completely different. In traditional cities the contributions of users were evident in the built environment. Users and traditional builders took decisions on the site, respecting the whole surrounding environment. For example, if they were building a house they respected their neighbour's privacy. In the contemporary areas there are ready-made building regulations and codes which people use without knowing the reasons behind them.

1.2.1.2 The Personal Level

Because of the radical change in the built environment, many social and cultural aspects of society have changed. The new built environment has led to cultural disturbance and many social habits have been deactivated. For example, spaces and squares where people gathered, which were the focal points of the social life in the traditional built environment, disappeared in the contemporary built environment, which led to less social interaction (Bokhari, 1978). Most people now identify themselves as individuals instead of as members of communities. Thus, in individual houses one can find different attempts to display different styles which originate from all over the world.

Zain Al-Lyaly stated that "house construction was no longer an incremental building process involving the user and the master builder. Instead, building practice became virtually a finished product, in which several professional groups (designers/architects, builders/contractors, and structural, electrical and services engineers) participated and shared responsibility for the physical outcome" (Z. Al-Lyaly, 1990, p207). No one can deny the role of professionals (designers and decision-makers) in developing the built environment. Professionals in Jeddah played and are still playing an important role in accelerating the change in the built environment. "The intervention of the architects, mainly foreign architects, had a great impact on the traditional environment. They introduced new concepts, ideologies and form to the traditional architecture" (Al-Harbi, 1989, p289). Even local professionals have received their professional experience either from abroad or from foreign experts. Eventually professionals no longer associated themselves with the local environment. Consequently new design ideas unsuitable to the society have been brought in from outside. Architects and planners find themselves ill-equipped for making decisions which bear on people's identity.

1.2.2 The Problem Factors

The process of change in various aspects of the built environment of the city of Jeddah can be explained as the collective impact of different factors. Given that it is the main goal of this thesis to understand this change, it is important at the outset to identify these factors. Beyond the problem we have been addressing many factors that led to it; reform without a clear understanding of those factors will lead to further problems. This part discusses the impact of each one of these factors on the built environment of the city of Jeddah. These factors can be classified in two main types, local factors and international factors.

1.2.2.1 Local Factors

Rapidity of local economic growth

As a result of the oil boom, there was rapid urban growth in Saudi Arabia. Cities and towns grew from being small settlements into large urban areas. The master plans which were prepared for Saudi cities did not have as their primary aim the production of a physical environment that reflects people's culture and social life. They were based mainly on economic and demographic surveys and traffic studies; urban expansion seen as a necessary by-product of national development. There was no time for an evolutionary process where planning and design concepts could be tested and adapted to the Saudi environment.

Growth of cosmopolitan culture

Differences in culture between the original residents and the new immigrants from different areas led to cultural disturbances. If we take Jeddah as an example, in 1947 before the economic boom, the population of the city was 30,000 people; within 35 years the number had risen to 350,000, eleven times the original figure.

Increasing affluence

The increase in people's income opened the door to various ways of life with new requirements different from what they use to. There followed environmental changes in the living and working conditions of both urban and rural dwellers. More than just creating the possibility of using imported and unfamiliar goods, changes came that affected all aspects of life (Talib, 1984). The contact of Saudis with other cultures through work, travel and education, as well as their aspiration to a modern way of life, have influenced the traditional expectations. The whole built environment has consequently been influenced (Al-Harbi, 1989).

1.2.2.2 International Factors

The influence of the modern architecture

The influence of the modern architecture is evident in the Saudi built environment. Talib (1984) argues that "the influence of Western architecture is apparent, and a false identity without any links with tradition or regard for present needs has been adopted because one is easily impressed by the 'modern' or the International Style in a rapidly developing country" (Talib, 1984, p115). In other words, the built environment in Saudi Arabia is significantly affected by international style, rather than derived from natural environmental factors, socio-cultural factors or any holistic concept of living in a tradition or fulfilling the present needs of contemporary Saudi society.

Increased mobility and communications technology

The effect of technology is as apparent in the planning and the architecture of Saudi cities as in most of the world's cities. The introduction of the automobile had a great impact upon the urban form of the city. The streets became wider and lacked shaded areas which would

encourage people to walk. In addition the use of indirect new ways of communication such as telephones replaced the social use of open spaces (Bokhari, 1978).

New construction technology

The effect of new construction technology is clear in the huge masses of buildings and the strange building forms. The designs are as unfamiliar to the urban form as they are unsuitable to physical conditions.

1.3 The Formulation of the Study

This thesis expresses my interests in urban planning, developed through study, work experience in both practical and academic fields, and from living in the city of Jeddah. During my final year as an undergraduate, the issue of conservation attracted my attention. I believe that conserving the past is one of the ways to a successful future. Together with another student, I recorded, studied the development of the historic district of Jeddah. During that work, many questions arose. For example, what should we study in order to appreciate an area's identity? What is it in these buildings that make them unique to their place? Moreover, how do people perceive these buildings?

After graduation and a few years working with private company as a professional architect, I became convinced that there was something inappropriate happening to Saudi cities. I saw a conflict in directions and opinions among professional and ordinary people about how to create a better living environment. What became clear was the large gap between the expectations and cultural needs of the city's residents and what their experience was in daily life in its social, cultural and architectural aspects.

I was granted a scholarship to do PhD research into the identity of the built environment of the Saudi citizens and the idea for this research was directed by the government plan. The main objective was to reflect on architecture and planning, both in Jeddah and in other similar situations and to provide feedback for architectural design and planning that suits Saudis. I believe that this study will not only help in retaining the identity of the past but also it will help in strengthening that identity in the future.

1.4 The Research Objective

The objective of this research is to**: construct a means to evaluate the built environment according to how it conveys, interprets, expresses, enhances or confuses Saudi identity.**

1.5 The Research Questions

When the development of the built environment in Jeddah is viewed from the perspective of an enquiry into identity, two conflicting forces should be taken into consideration: those generated by the subsequent generations of citizens and those exerted by rapid growth. The situation in Jeddah is unique and provides great opportunities for such a study.

In this sense, the investigation in this research takes into account many factors and implications which affect the development of the identity of the built environment within the context of modernisation. On one hand, it will study the actions and policies which affect the identity of the built environment and on the other it will examine the objects that people use to represent their identity as a nation and as a group with a specific culture. The intention is to point out the features of the place that reflect the nation's identity and the

changes in those features which have been introduced in the last five decades. The questions that this research starts with are the following:

1. What did the environment in Jeddah look like before the recent changes?
2. What has been the impact of the rapid demographic, economic and urban growth on Jeddah's identity?
3. How might the findings of questions 1 and 2 be related to each other?
4. How do the Saudis express their social identity through the built environment?
5. What elements of the city do Saudis consider to be reflective of their identity?
6. What elements of the neighbourhood do Saudis consider to be reflective of their identity?
7. What elements of the house do Saudis consider to be reflective of their identity?
8. What can we learn from this study which might be applied to architecture and planning, both in Jeddah and in other similar situations, and how we could provide feedback for architectural design and planning that suits Saudis?

1.6 The Case Study

Jeddah is a growing Saudi Arabian seaport on the Eastern shore of the Red Sea. Its remarkable history and architecture has led its citizens to call it the "Bride of the Red Sea". The history of the town goes back to pre-Islamic times, but little is known of its history before the reign of the Third Orthodox Caliph Uthman Ibn Affan, who ordered the rebuilding of the town in 646 AD as a port for Makkah Al-Mukarramah.

During the 1940s Jeddah enjoyed a commercial and financial boom inspired by both the substantial increase in the number of pilgrims arriving at its port and by large oil revenues. Following this, the town grew in all directions. During the fifties the native citizens of Jeddah began to leave their traditional houses in the centre of the town in favour of the new

suburbs. In the decade between 1947 and 1957 the city finally shed its traditional characteristics to cope with the modern life. New buildings and new building materials and technologies were introduced. Finally the city started to lose its traditional structure and the physical image was changed rapidly. For the most part development simply reacted to the demand and pressures of modern life and in the process the valuable qualities of old Jeddah were forgotten. Jeddah with its traditional and modern areas as a case study offers a good chance to study the development of identity through the modern history of the city. This creates a unique opportunity to investigate the nature of identity in the built environment, and the effect of changes that have taken place in the country's self-perception.

1.7 The Research Methodology

The orientation of this research is exploratory and relies, as far as the research methodology is concerned, on an integrated qualitative quantitative approach. The reason for using this approach is that this research is not only aimed at defining the features which constitute the city's identity – which should be deduced, to be credible, by quantitative analysis – but also to investigate the subjective underlying factors which helped in the selection of those features. These underlying factors are more appropriately studied qualitatively. The validity of this approach was confirmed by Padgett (1998) as seen in figure (1.1).

The approach to the investigation in this research is organised into two parts. The first is the theoretical part which aims to identify the bases of this study and to understand the concept of identity in the built environment. This is achieved through a review of literature on the concept of identity and its relationship to the built environment. This enables the author to suggest how the concept of identity in architecture can be understood. This review will conclude with a definition of the elements of identity that might be objectively integrated

into new developments. The research will extend to test this definition through the empirical work in the case study. The second part is a case study which is employed for the contextual investigation which was held in Jeddah. It consists of a document review and a questionnaire. The document review aims at examining the implications of the rapid change on the changing identity of the built environment; the questionnaire aims at discovering those characteristics which Saudis consider to reflect the identity of their built environment and how they interpret them. This comparison will move from the large-scale to the small-scale (the city; the neighbourhood; the house) to help us understand and clarify the concept of identity within the built environment (see figure 1.2).

Once the objectives and questions have been identified and the theoretical bases of the study have been conceptualised, our task is to examine the data collected from the case study in order to achieve the objectives and to answer the questions raised.

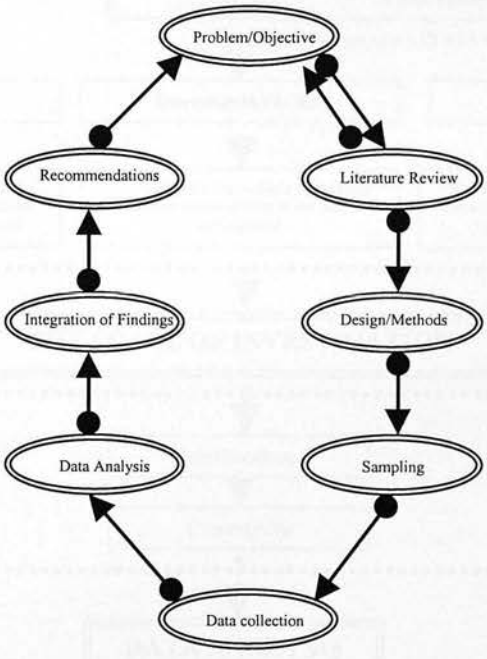

Figure (1.1): Concept map of integrated qualitative-quantitative study.
Source: Padgett, 1998, p132

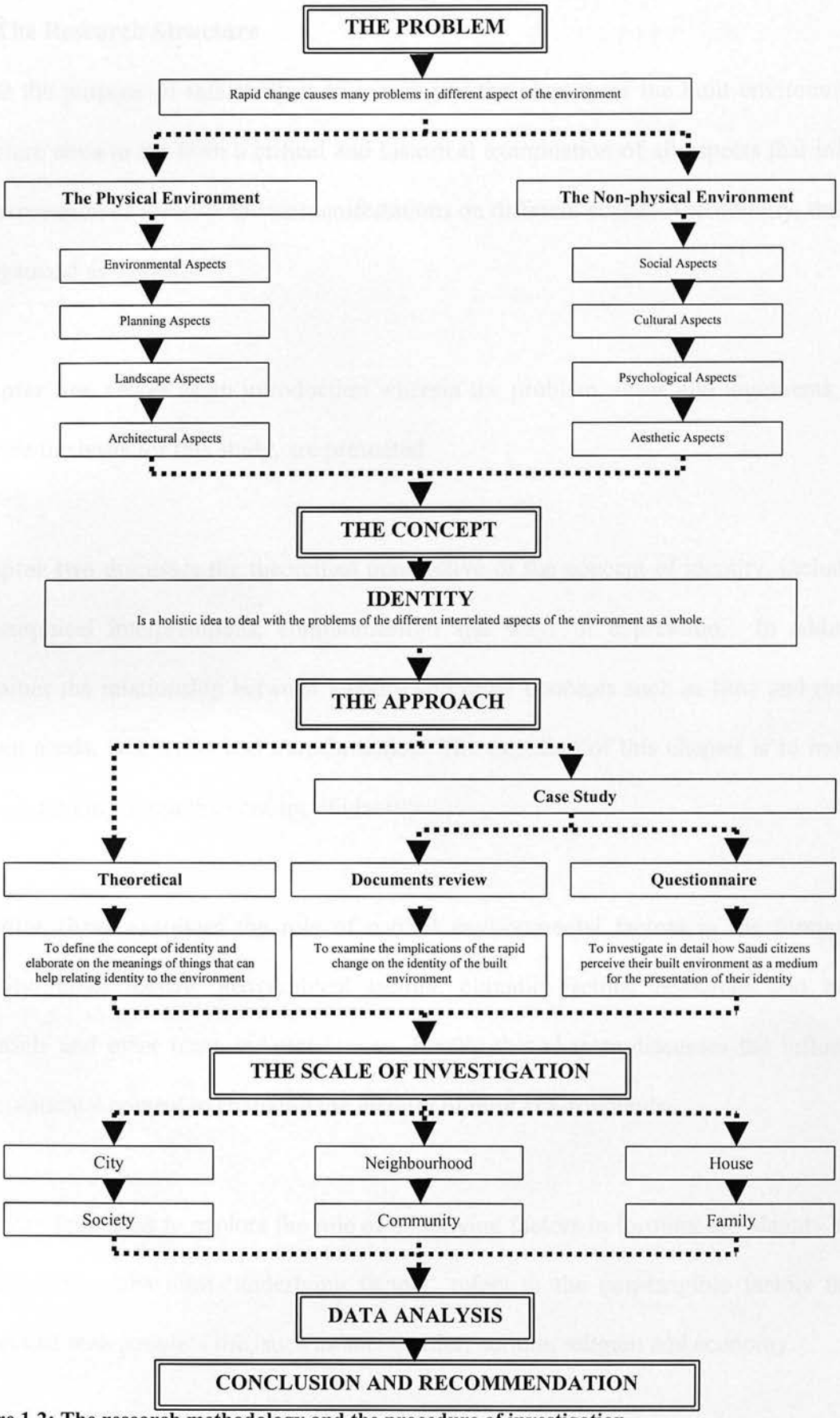

Figure 1.2: The research methodology and the procedure of investigation
Source: The author

1.8 The Research Structure

Since the purpose of this study is to investigate the identity of the built environment, its structure aims to set forth a critical and historical examination of all aspects that influence the expression of identity and its manifestations on different scales. Accordingly, this thesis is organised as follows:

Chapter one serves as an introduction wherein the problem, ideas and arguments, which provide the basis for this study, are presented.

Chapter two discusses the theoretical perspective of the concept of identity, including its philosophical interpretations, communication and ways of expression. In addition, it examines the relationship between identity and other concepts such as time and meaning, human needs, adaptation and transformation. The intention of this chapter is to indicate a way of thinking about the concept of identity.

Chapter three examines the role of natural environmental factors in the formation of identity, these include geographical factors, climatic factors, resources and building materials and other more indirect factors. Finally this chapter discusses the influence of environmental control in changing the identity of built environments.

Chapter four aims to explore the role of underlying factors in forming the identity of built environments. The term 'underlying factors' refers to the non-tangible factors that are associated with people's life, such as social order, culture, religion and economy.

Chapter five investigates how the built environment can be conceptualised as contributing to meaningful social, cultural and natural objectives, which determine how spaces should be used and their identity. The aim here is to understand the major elements that determine the identity of cities, neighbourhoods and houses (see fig. 1.3).

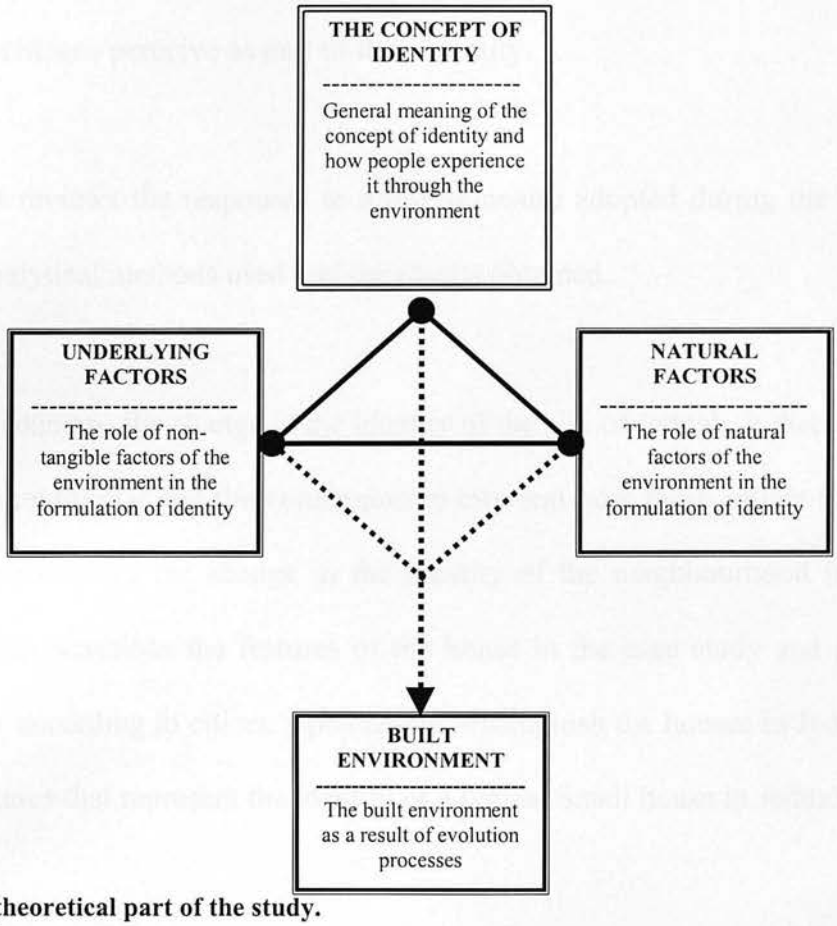

Figure 1.3: The theoretical part of the study.
Source: The author

Chapter six introduces Saudi Arabia as the context within which this investigation is carried out. It gives an overview of the factors affecting the development of the built environment in Saudi Arabia, including the historical changes that have taken place since the beginning of the twentieth century, the social and cultural characteristics of the Saudi society and the physical features of the natural environment.

Chapter seven concentrates on the city of Jeddah as a case study for detailed and in-depth investigation that aims to provide more coherent and consistent explanations of the concepts under discussion. This chapter analyses the social characteristics of citizens and the historical background of the city. Moreover this chapter describes the built environment of Jeddah in the past and at present. In addition this chapter identifies those features of the city which the citizens perceive as part of their identity.

Chapter eight reviews the responses to a questionnaire adopted during the fieldwork. It explains the analytical methods used and the results obtained.

Chapter nine concerns the change in the identity of the city of Jeddah. It discusses both the features of the traditional and the contemporary city and how these reflect the identity of people. It also examines the change in the identity of the neighbourhood in the city of Jeddah. It further describes the features of the house in the case study and identifies the features which, according to citizen's perception, distinguish the houses in Jeddah; in other words, the features that represent the identity of a typical Saudi house in Jeddah.

Chapter ten summarises the results of the investigation. It discusses the insights gained from the investigation in the light of their influence on the built environment of Jeddah. It discusses the research findings from the literature review and the case study. It also points out general recommendations to enhance the process of identity transformation. Moreover, it presents recommendations for the case study specific context to help professionals in architecture and planning to adopt this concept in practice.

CHAPTER TWO: THE CONCEPT OF IDENTITY

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(2)

THE CONCEPT OF IDENTITY

2.1 Prologue

In order to establish an intellectual framework for the understanding of the notion of identity, it is necessary to investigate and grasp its essential aspects and characteristics. This investigation will serve as a source toward the construction of theoretical guidelines that will help to develop a coherent view of identity within people and their built environment.

In our response to an object, we perceive it in relation to something else. Therefore, this study proposes interrelated components towards understanding the expression of identity in the environment. These include the natural environment, the people and the signification and characterisation of the introduced built environment. Moreover, this research considers the identity of the built environment as socially and culturally constructed, and that its development should be coherent with the surrounding context.

The aim of this chapter is to formulate more clearly the outlines that highlight the concept of identity within people and their built environment. It also aims to investigate the sources of concern that gave rise to the claims of the study that identity of built environments were the result of an evolutionary process. The approach for this discussion starts from the abstract interpretations of the concept and ends in the practical implications or special cases related to people and the built environment.

Accordingly, this chapter discusses the concept of identity, including its general meaning from the point of view of different scholars, in order to formulate a general definition for this concept. How identity can be communicated is another important part, which will be discussed in this chapter to understand the system behind this concept. That there are different ways of expressing identity is an important issue, which will be discussed in more details in relation to people and the built environment. Moreover, in order to establish a clear understanding to the concept of identity and its manifestation in the built environment, the different levels of identity (individual and group), their aspects and the relationships between them, are examined. The last part explores the relationship between the concept of identity and other concepts; namely time, meanings, human needs, adaptation and transformation.

2.2 General Meaning

What is meant by identity? Is it just the fact of being unique or distinctive; if so, in what sense? The identity of something refers to a persistent sameness and unity, which allows that thing to be differentiated from others; for example we can recognise the identity of people, animals and plants because these have fundamental identity. In order to gain insights and appreciate a general meaning of identity, definitions and terms which have been used by some scholars are reviewed.

According to David Hume, an eighteenth century philosopher, identity is the most universal relation which is discovered by perception rather than by reason. He proposed that mankind is nothing but a bundle or collection of different perceptions. Accordingly, we carry within us a distinct idea of an object that remains invariable and uninterrupted through a supposed variation of time. He called this "identity" or "sameness".

Hume related the concept of identity to the notion of duration, in other words, the persistence of the qualitative properties of object over time. He stated that identity is to be found in our relations with time and place. To him, an object is the same, which means that an object's essential existence at one time is the same as at another. He argued that the identity of a mass is preserved in three cases: when the variation is small in proportion to the whole and introduced gradually; when the parts are combined to a common end; and when an object is naturally variable (Hume, 1967).

Hume also emphasised the importance of memory as a source to discover and produce identity. He argued that the memory is the possible mechanism for the establishment of the concept of identity. However, Hume did not consider the nature of identity as continuity in space and its relationship to objects.

Amos Rapoport, one of the few who wrote very extensively about human aspects in design, wrote that: "Identity is a difficult concept to define. Dictionaries give multiple meanings, the two most relevant referring to the unchanging nature of something under varying aspects or condition; and the condition of being one thing and not anther. Both in fact seem relevant, but the latter notion seems to be at the heart of the concept as it applies to the question being considered. In some way and some how, the unit in question sees itself, and is seen by others, as being different to other units. This would seem to involve both an inside or contents and boundary to the outside" (Rapoport, 1981, p10).

Eli Hirsch (1982), in his writings, reaffirmed the concept of identity to that of continuity. He clarified that continuity lies in the object's physical persistence over time

in which the nature of the unity-making relationship binds the successive stages of a single persisting object.

Hirsch then added that two types of continuity should be taken in consideration in the analysis of the unity-making relationship: the first is continuity of qualitative change and the second is continuity of location change. He argued that the unity-making relationship, which binds a succession of object-stages into a single persisting object, is essentially a qualitative and spatio-temporal continuity. He stated that qualitative continuity for an object means that it either does not change qualitatively at all or undergoes qualitative changes which are continuous. In other words, an object's qualitative changes are continuous if at any given time the object is very similar to the way that it is at neighbouring times. Spatio-temporal continuity, on the other hand, is an object's overall location in space, which is determined by the locations of its parts. He argued that where parts are added as a whole or subtracted as a whole, the object's overall location must suffer some degree of discontinuous change (Hirsch, 1982).

Bill Erickson and Marion Roberts address the meaning of identity by arguing that: "Identity is an elusive concept. Generally it is used in relation to an individual or a social group. Identity's two literal meanings seem at first to contradict one another. Identity can be defined as the qualities that make an individual capable of being specified or singled out, make it unique; of separateness. Conversely identity can also refer to perfect sameness between individuals, to the state of being identical; uniformity" (Erickson and Roberts, 1997, p36)

From the examination of these scholars' interpretations of the concept of identity, it is noted that all of them share the deficiency of not articulating the possible different types

of identity by assuming that the concept of identity is undifferentiated. However, Benswessi (1987) distinguished between two types of identity; 'identity of' and 'identity with'. He explained that 'identity of' is the persistent sameness within oneself, which allow a thing to be different from others (i.e. different types of buildings, plants, places or even nations). On the other hand, 'identity with' is the identification with other things, which he called "harmonious identity". He noted that each type of identity places certain emphasis towards consolidating an idea of uniqueness. In "identity of" there is individualisation in both the process and the product, which allows individual creativity to engender uniqueness in the form and content. In this instance, Greek Temples, Gothic Churches, monuments etc. are good examples. In contrast, the uniqueness in "identity with" is dependent on integration and harmony with a specific setting (natural environment, built environment, memory, beliefs, etc.) in determining the form and the content of objects.

The focus in this work is on the search for an understanding of the development and change in the built environment in relation to the concept of identity with. According to this, objects will be examined in their relationship to the characteristics of their place and cultural setting. Therefore, objects will be considered as achieving their uniqueness by identification with the specific culture, environment and belief systems. This does not mean copying or duplicating the existing built environment, nor in seeking a complete alternative, rather it should address the issue of coexistence.

The process of establishing identity involves, according to Rapoport (1981), at least two steps: first, the definition of the contents by the distinctiveness of the unit which implies a contrasting set of others; second, the setting up of some boundary separating the domains and raising questions about the nature of this boundary; how it is known; how

it is reinforced; how people are reminded of it and so on. The boundaries could be spatial or territorial, ethnic or religious, and they could be communicated through roles, behaviour, dress, hairstyle etc (Rapoport, 1981). For example if we consider Nomads as the contents, then we can say that their lifestyle, which includes many socio-cultural aspects is the boundary with which distinguish this group of people.

After recognising the sense of identity, people use this sense in their interactions with others through language, dress or other forms. Concurrently, people use different objects and settings in the built environment to establish or maintain their identity. In certain circumstances, people may become "self-conscious" of their identity, worriedly searching for new ways to interpret who they are now and who they will be in the future and then seeking means to express this interpretation. This happens, for instance, when people are exposed to external forces that influence their lives and environment, they start to stress their identity for example in the case of countries under colonisation.

Identity can be conceptualised as consisting of three related elements (Hewitt, 1984): first, symbolic placement that situates the person in the world, at once differentiating the individual from some aspects of reality and affiliating the person with other aspects; second, an interpretation of both the qualities and values of self, characterised respectively in self-imagery and self-esteem. This multi-facetcd nature of identity is nicely reflected in the everyday language of identity and identification. We identify ourselves as people of certain type, quality and value; we also identify ourselves with others and with significant objects, in order to give a sense of belonging and attachment. For example, the people in Saudi Arabia consider themselves Saudis, not Jordanians or British; and they consider themselves part of the Arab nations and not part of the European nations.

Third, identities embedded in culture are socially and historically specific. They are produced in the individual consciousness through life-long socialisation and the patterned experience of every day life (Berger, 1970). For example, most Saudis live in a traditional Muslim society with its social structure, culture, tradition, norms and values.

2.3 The Communication of Identity

The result of having a conceptualised individual identity is that it can be communicated to the self and others. This means that there is a system of messages which clearly communicates the essentials of identity. Reception of these messages involves the need to know the particular expression and the essential categories used. "For communication to occur cues in the physical environment must be legible, the observer must be able to interpret the information" (Harris and Brown, 1996, p187).

There is a difference between communicating identity internally (to members of the group or to oneself), or externally (to others or to outsiders). Sometimes, a certain object in the built environment is seen as positive by the group internally and is used in asserting their identity. However, outsiders could see the same object as having no contribution to the group identity. For example, in the case of Bedouins, mobility may be a form of identity it can also led to negative identity. One can, in fact, argue that that the absence of a permanent house is one reason for the negative view taken of Bedouins. So, it is important to distinguish between these two aspects of communication: first, asserting identity to oneself and one's own group, i.e. establishing internal cohesion; second, communicating identity to others, i.e. establishing boundaries between 'us' and 'them'. In this sense, the communication and its clarity strengthen the identity. Consequently, these differences distinguish different groups, which lead to various

forms of interactions and relationships. The question then arises: what are the things that distinguish one group from another? (Rapport, 1981).

2.4 Ways of Expressing Identity

All forms of identity, whether ethnic, religious or individual depend on setting up a contrast with those who are different (Leach, 1983). These differences both separate and distinguish social units and also lead to various forms of interaction or communication.

Identity may be expressed through establishing noticeable differences in the system used, so that people become aware of the presence of a distinguishable system. This can be done in two ways: first, by using strong cues which are different and have a high level of redundancy; second, by making sure that these differences and cues are understood (Rapoport, 1981). This can be met when the meanings and codes are understood, and this happens when the core elements used by the group to identify itself and used by others to identify it coincide.

However, the various forms of identity can be expressed in the environment in different ways: by using visible manifestations, by using non-visible manifestations or with both. In order to understand the role of the environment in the formation of identity, it therefore becomes important to understand what is meant by "environment". The key attribute of any definition is that the environment surrounds. So, any definition, description, or explanation of the nature and functioning of the environment must be with reference to something surrounded. Of particular interest to this work is that which surrounds people at the ecological level - the level of everyday human behaviour. The basic point made is that the surroundings of humans consist of natural environment, built environment and social and cultural components.

2.4.1 The Use of Visible Manifestations

This includes the use of both natural and manmade environmental elements to communicate and ensure identity. Such elements include location in space (countries, regions, cities, neighbourhoods, villages and so on), settlement patterns (compact, less compact or scattered), landscape and dwellings. It also includes some visible manifestations such as indicating members of the group, for example, clothing, hairstyle and facial marking (see figure 2.1).

Dress is one of the most immediately visible manifestations of identity. It is a result of cultural and climatic adaptation. In India people are very conservative, both in manner and dress. Traditional dress is more than clothing: it is a symbol, an institution. Men wear loose trousers made of light cotton and a long colourless shirt while women continue to wear saris (Reader's Digest, In Search of India and her Neighbours, 1993).

Figure 2.1: Using clothing as a visible manifestation to express identity.
Source: The author

2.4.2 The Use of Non-Visible Manifestations

Non-visible manifestations of identity are the use of certain social boundaries based on various cultural elements to express identity, for example ethnic values, behaviours, family life, language and religion. Identity can be expressed through ethnic values by certain traditions (for example marriage traditions), activities etc. It can be also communicated throughout religion, which is understood to be a cultural system. Religion has a very strong influence on the formation of the laws, arts, ethical values and spiritual ideas (as the author explains in chapter four).

Giddens (1997) wrote that the diversity of human culture is remarkable. Acceptable forms of behaviour vary widely from culture to culture, often contrasting in a radical way. Every culture has its own unique patterns of behaviour which seem alien to people from other cultural backgrounds. He then defined ethnicity as an important element to differentiate between different groups as the cultural practices of a given community of people that set them apart from others. Members of ethnic groups see themselves as culturally distinct from other groups in a society, and are seen by those others groups to be so in return. Different characteristics may serve to distinguish ethnic groups from one another, but the most usual are language, history or ancestry (real or imagined), and religion.

2.4.3 The Use of Combined Visible and Non-Visible Manifestations

In most of the cases in any society, people tend to use both visible manifestations and non-visible manifestations to express their identity, although the degree of usage might differ from group to group. There will be cases where visible manifestation will be more generally involved and others where non-visible manifestation will play no role at all. Most traditional Muslims cities are a good example of the use of combined visible and non-visible manifestation to express their identity. Within the traditional Muslim city you will find that the built environment with its compact urban form, narrow alleys, distinctive houses and mosques is a good example of the use of visible manifestation, while the Muslims cultural traditions is an example of the non-visible manifestations.

2.5 Levels of Identity

One could assume a range of units, ranging from an entire nation to a single individual, which might establish identity (Rapoport, 1981). Between these units occur some shared values within the general identity (see figure 2.2). We can express the differences

between individual and group identity by comparing a palm tree as an individual with trees as a group; there are common characteristic between them, for example, trunk, leaves, root, etc. However, each palm tree has its own characteristic, which makes it single out and gives it its individuality/uniqueness.

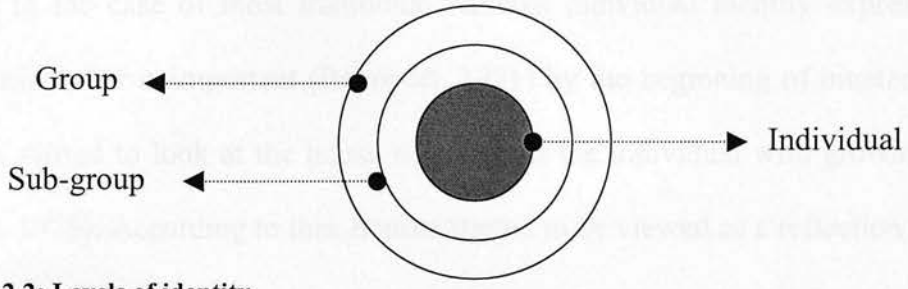

Figure 2.2: Levels of identity
Source: the author

2.5.1 Individual Identity

An individual identity can be seen either in terms of role, for example king, prince, mayor or in terms of me versus all others (Rapoport, 1981). It can be expressed through distinctive personal characteristics, a way of looking at the world, a kind of behaviour, type of dress and so on. It is still intimately linked to group variables since it has been described as being the result of developmental sequences -family life and school experiences, and social categories and groups- religious, ethnic, gender and age, as well as the setting spaces and places.

As individuals we all form personal identities. An understanding of our location, both within social grouping and in space, has long been recognised as essential to this procedure (Walmsely, 1988). Places (cities) and their identity are bound to personal experience and feeling through the association of similarities and differences between other people, other places and ourselves. Place identity is an important part of self-

identity. The places we share with others and their shared meanings help to form a collective self-identity of the community (Burgess, 1978).

A number of theoretical perspectives suggest that the house can communicate both individual and group aspects of resident identity (Cooper, 1976; Altman and Chemers, 1980) In the case of most traditional cultures individual identity expressed through houses is rather unimportant (Rapoport, 1981) by the beginning of nineteenth century, people started to look at the house as a sign of the individual with growing frequency (Cohn, 1979). According to this, houses started to be viewed as a reflection of economic rank and personal prosperity. At present, contemporary societies use houses and household objects as the symbolic medium for the display of the self and its unique personhood.

2.5.2 Group Identity

Any person's individual life participates in the collective life of the society to which he or she belongs. This life shapes the group identity of the individual. Such identity involves a sense of location within the structure of the society and a more or less developed sense of belonging to certain groups within it. Some such group identities, including class, gender and ethnic identities are facets of major social statuses in society and reflect fundamental social differentiation learned through socialisation, and performed through attendant roles (Rapoport, 1981).

People who share a common national identity will tend to act as one unit and mobilise as a coherent mass within a certain configuration. "Through a shared identification, individuals are linked within the same psychological syndrome and will act together to preserve, defend and enhance their common identity" (Bloom, 1990, p26).

Other group identities are the product of smaller social worlds, generated in the interaction and communication of daily life. Therefore dwellings, often play a significant role in this facet of identity either as physical signs of group identity, or symbolic settings for the performance of socially constructed roles of identity. Dwellings, like other aspects of group identity such as language, behaviour and clothing, enable the group to differentiate itself from other groups through symbolic boundaries.

Objects in the built environment may also be "integrative symbols" that provide collective representations for group members and sustain group commitments (Hummon, 1989), as in the case of tents for Bedouins, it is a symbol of shelter, mobility and craft.

In most traditional cultures the stress has been on group identity. Individual identity has tended to unimportant or lacking. Therefore, contribution to and participation in group activities tends to be important. Under these conditions, dwelling places are conceived and valued primarily as shelter and places of group activity, and less for personal display of uniqueness. In fact, in contrast with communality, sanity or group character, the problem of contemporary society is that people seeking for individual identity as autonomous individuals or family units, rather than as highly integrated members of a strongly identifiable group.

2.6 Identity and Time

Identity, as it involves a placement of the individual in reality, involves questions of time: who am I now; who was I then; and who will I be in the future? Such placement is complex and reflects both the variety of temporal processes and the multitude of

cultural frameworks. The social rhythms of daily, weekly, monthly and annual routines and the biological passage of time through childhood and adulthood to old age both represent actions, experiences, and ultimately identity within certain frameworks of the social world (Weigert, 1981).

The change or transformation of each individual can be seen everywhere, between father and son, between mother and daughter, even between the young man and his childhood. With regard to architecture and in a broader sense, to the environment, the places one once knew seem quite different when returned to a few years later. Thus arises the question: could these changes have taken place more slowly, more quickly, in a different way?

Objects of the built environment may play a significant role in mediating time and identity to the extent they become signs of temporal processes, such as festive decorations. These facilitate the differentiation of time into socially or personally significant units, or act as material symbols of past and future periods.

In many cultures, dwellings have been used to symbolise the transition from one life stage to another. The transition from childhood to adulthood has been perceived as a major identity passage. This may involve a change of ones position in the family home or in to a new dwelling place. In this context, it can be said that housing types and forms may be defined as age-appropriate (Steinfeld, 1981). Recently, in Western countries, ones progression through ones life-cycle may start from the single-family house as a child, to student accommodation or apartment as an adult, to ones own single family house and finally to special housing as an elderly person.

Houses and dwelling objects are also important to identity in that they constitute symbols from the past, which represent the continuity of society. For instance, in reflecting memories of the past, household objects such as photographs become a significant element in an individual's personal identity as symbols of past experience and relationships.

2.7 Identity and Meanings

Mankind creates objects in an attempt to stress a significant existence that could express his beliefs, attitudes and values. Therefore, all objects have specific meanings for people. "Meaning in the environment is inescapable, even for those who would deny or deplore it. Everything that can be seen or thought about takes on a meaning" (Jencks, 1980, p7).

Osgood (1976) described meaning as the product of signs which reflect the idiosyncrasies of individual experiences. Benswessi (1987) argues that meaning, like emotion, is a relational or process concept; accordingly, the message of the sign as a cultural product resides in the use of the common features of the situations in which it is used and the activities it produces. This significance applies to the interpretation of particular individuals, particular concepts and particular factors. Therefore, what is meaningful to one person or group of people may not be meaningful to another.

Csikszentmihalyi and Rochberg (1981) relate meaning to the interaction between people and things. They argue that the things that people produce are not simply tools for survival, rather they embody goals, make skills and shape the identity of their users. Therefore, we should view every thing as a bit of information that has recognisable identity. Such information could be a sign or a symbol. In this understanding, the clothes one wears, the house one builds or furnishes, all are expressions.

In addition, people can attach meanings to objects and, therefore, derive meaning from them. Almost any object in the environment represents a set of meanings to certain people. It is not only the physical characteristics of objects that convey meaning, but also the cultural attributes and values people place on them.

Moreover, each person can discover a network of meanings out of his/ her experience. In other words, each person is free to attach any meaning to any object. However, some objects stand for memories much more than others do, whereas other objects recall experience or values. In this understanding, some objects are characteristics of youth, others of old people; some are more common among men, some among women. This means that the meaning of specific objects depend on gender, age, position in addition to values, religion and so on.

It is also likely that the meaning of the built environment to the social community varies in terms of their roles in people's lives. To my mother, for instance, the old mirror cupboard with its worn handles, musty smell, dark wood and broken leg has memories of my father, her wedding day and many other events Therefore, in spite of its bad condition, she keeps it tidy and clean and does not want to replace it. In other words, my mother keeps the cupboard because, for her, it is associated with several meanings.

Each society produces standardised, normalised objects, which are the realisation of a model and the substances of a significant form (Eco, 1980). Oliver (1975) relates the shelter with signs and symbols and notes that, because of the abstract nature of the symbol, any connotations attached to it are projected by man and not intrinsic to the figurative character of the symbol itself. Some argue that symbols are the concrete ideas of meaning which unite the members of a group on the various levels of their existence.

Others say that symbols are part of the process whereby the experienced world, the world of perception and concept, is created out of the physical reality (Eyles, 1983). In this sense; many symbols may take on different meanings in different societies.

Within the built environment, some authors consider meaning as an idea or thought that mediates between people and significant objects (Rapoport, 1981; Csikszentmihalyi, 1981). In this sense, these objects are considered as communicative elements within certain societies.

In terms of place, meaning affects the development of the built environment in two ways. On one hand, it asserts an identity on the place while on the other, it enables an individual to acquire identity within a place which, in turn, influences his actions and behaviour (Dayaratne, 1992). In order to understand place meanings, it is essential to examine the process of change such as urban renewal, relocation and gentrification (Rivlin, 1982). In this understanding, organisation of space could also be considered as an organisation of meanings.

Meanings are expressed through signs, materials, colours, forms, furnishings and so on (Rapoport, 1982). Things in space such as ornamental objects, space dividers, doors and the like can initiate these signs. Jencks (1980), following the traditions of semiology initiated by de Saussure in the 19th century, divided signs into two categories: a signifier and signified. The signifier could be forms, surfaces, proportions, colour, textures etc., while the signified could be intended meanings, social beliefs, functions, activities etc. Accordingly, these meanings form a system of non-verbal communication in the built environment, which provides clues and messages about the place and its rules for use in

allocating position, rank, status or value. Moreover, meanings can be both expressed and studied as symbols representing human thought and behaviour.

2.8 Identity and the Basic Needs of Human Life

Needs are numerous and they generate different connotations for different individuals. Human needs are a reflection of man's nature of being both "matter" and "spirit". At first, man searches to satisfy his physiological needs such as for food, water and shelter. Then the more psychological needs such as aesthetics, belonging and identity, must be gratified in order to fulfil all human desires. Nonetheless, both physiological and psychological needs are manifested differently in different communities reflecting various cultures, attitudes and the preference of different people. For example food and shelter can be said represent the most essential needs for man, yet the way of making them characterises different civilisations or groups.

Different scholars identify aspects of needs differently. Fromm (1949) divided human needs into five main categories: relatedness, rootedness, transcendence, sense of identity and the need for frames of orientation and devotion. In addition, he defined self-identity as the most fundamental need of man's existence. Fromm argued that identity characterises man as a distinguished person and also determines his actions as being related to others. For example, bonds between people which distinguish a certain group from another such as nation, religion, class etc, constitute the source of the expression of identity. Steel (1981) related needs to the function of the built environment, behaviour patterns and design issues. He said that, in order to satisfy his needs for esteem, man's concerns should be for growth and pleasure. This argues that the socio-physical mechanisms that should be taken into consideration are personalisation, symbolic aesthetics and control.

Maslow (1987) suggested that human needs could be arranged in a hierarchical fashion, with strongest-level needs taking precedence. He outlined in 1954 a model that expressed human needs as a "ladder". Its hierarchy, in descending order, is as follows: physiological needs, such as hunger and thirst; safety needs, such as security and protection from physical and psychological harm; belonging and love needs, which concern the relationship of responsive, or affectionate, and authoritative needs; esteem needs of an individual to be held in high esteem in his own eyes as well as those of others; self-actualisation needs, which represent the desire to fulfil one's total capacities; and cognitive and aesthetic needs, such as the thirst for knowledge and desire for beauty for their own sakes (see figure 2.3).

2.8.1 Physiological Needs

Undoubtedly the physiological needs are the most dominant. They range from the priorities of hunger and thirst to the needs of sleep, rest, hygiene, light, air and so on. To fulfil hunger and thirst needs, people all over the world have produced different responses and "national" foods and drinks for example Chinese food, Indian food, Mexican food, etc. These became defining elements of the culture of different groups. In addition the way that people make or produce their food and drink characterises them from others producing the same food or drink and habits of eating and drinking differ from culture to another.

Faced with the thermal and climatic conditions in different places, people similarly produce different architectural solutions to provide the necessary physiological needs like warmth, ventilation, sanitation, daylight, etc. The outcome of fulfilling the requirements of shelter is the different patterns of settlement and different house styles

which characterise different places all over the world. "Fulfilling these basic types of needs at present is done with a great sense of cultural dimension" (Masaud, 1996, p 76).

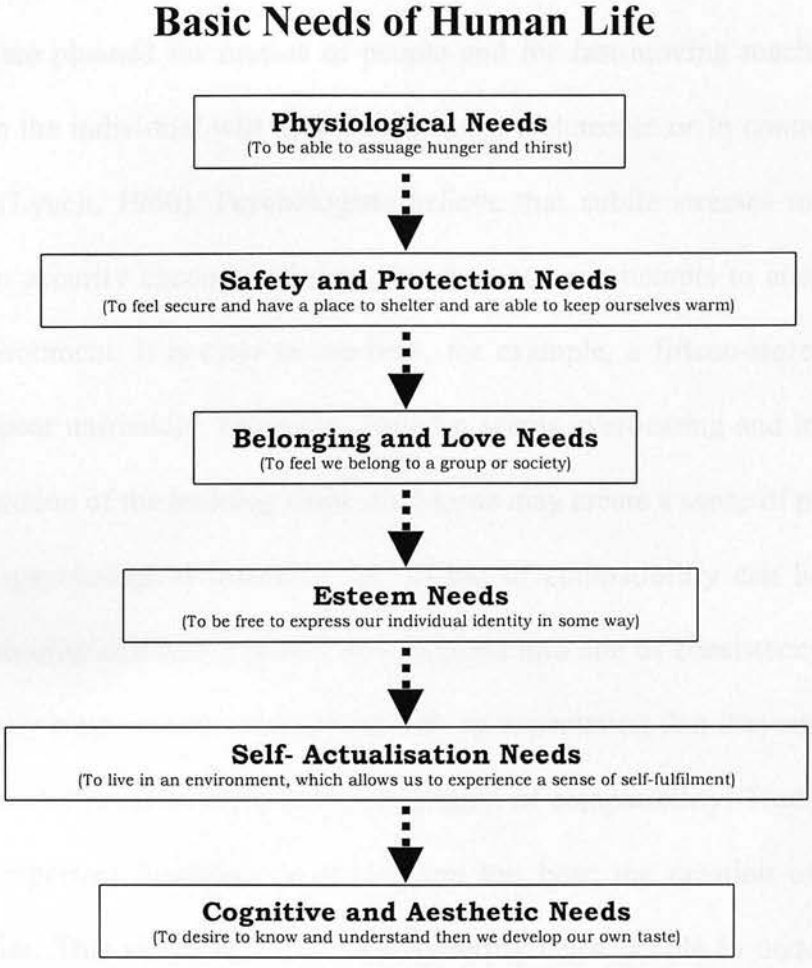

Figure 2.3: Basic needs of human life
Source: The author; based on (Maslow, 1987)

2.8.2 Safety and Protection Needs

People want to feel safe and secure within their built environment (city, neighbourhood and house). "A person will feel secure if he can control his own security within the limitations of reality and human potential" (Masaud, 1996, p77). Many urban area on the contrary, are planned for masses of people and for fast-moving machines. In this situation often the individual will find it difficult to feel secure or in control of his/her environment (Lynch, 1960). Psychologists believe that subtle stresses may occur in one's drive for security encountered day after day, as one attempts to adapt to a non-amicable environment. It is clear to see how, for example, a fifteen-storey apartment block may appear unfriendly. From the ground it seems overbearing and imposing and the small deflection of the building from wind loads may create a sense of physiological and therefore psychological insecurity. A feeling of compatibility can help create a sensation of security and turn a hostile environment into one of consistency and value. People generally enter architectural spaces with an expectation that they are capable of being understood; therefore, there is an expectation of compatibility. Traditionally one of the most important functions of architecture has been the creation of visual and functional order. This visual and functional ordering helps people to understand their environment. At the same time that order does not need to eliminate architectural quality or its aesthetic values.

2.8.3 Belonging and Love Needs

Love needs involve giving and receiving affection. When these are unsatisfied, a person will feel keenly the absence of friends, a mate or children. Such a person will hunger for relationships with others in general, for a place in a group or family and may strive with great intensity to achieve this goal. Any society must satisfy this need, one way or another, if it is to survive and be a healthy environment for its people (Maslow, 1987).

Each individual has a specific personality in terms of the arrangement of significant relationships. First with the self, next with an intimate circle of other persons, parents, siblings, other relatives, close friends and, lastly, with significant social structure school, place of work and so on. Therefore, relationships and friendships with other people fulfil the need of belonging. Architectural space is significant in its conditioning and control of the interaction between individuals and groups, within families, among neighbours and through the more casual and accidental meetings which occur between them (Gehl, 1987).

2.8.4 Esteem Needs

Almost all people in our society have a need or desire for a stable evaluation of themselves, for self-respect or self-esteem and equally for the esteem of others. These needs may be classified into two subsidiary sets. First, the desire for strength, achievement, adequacy, mastery and competence, confidence in the face of the world, independence and freedom. Secondly, what one might call the desire for reputation or prestige. Satisfaction of self-esteem needs leads to feelings of self-confidence, worth, strength, capability, and adequacy of being useful and necessary in the world. Thwarting of these needs produces feelings of inferiority, of weakness and of helplessness. Satisfaction in this regard, feelings in turn, gives rise to the most stable and, therefore, most healthy self-esteem which is based more on respect from others rather than on external fame or celebrity and idolisation (Maslow, 1987).

There are many examples of the meaning of self-esteem expressed in architecture. We like to express ourselves and we like society appreciate us. We use this principle in architecture as well as in our personal lives. For example we put decoration on our houses because we want people to recognise our contribution to society. In many places,

people enjoy personalising their buildings, particularly if the design allows them to do so. On the other hand some building designs and terms of occupation actively inhibit people from introducing even slight changes that express their desires or personal choices. One cannot for example paint the building or even its front door, nor add some feature in the façade for reason of maintaining an original design or uniformity with ones neighbours. Such circumstances constrain people's desire for self-expression or self-esteem.

2.8.5 Self-Actualisation Needs

What humans can be, they should be. Musicians must make music, artists must paint, poets must write if they are to be ultimately at peace with themselves (Masaud, 1996). They must be true to their own nature. This need we call self-actualisation. According to Maslow, self-actualisation refers to people's desire for self-fulfilment, namely the tendency for them to become actualised in what they are potentially.

Because the "self" is simply an idea, an intangible thought pattern, there exists a powerful desire to manifest it, make it into a concrete imprint on the world. It is the desire to "leave a trace" and this should be in some way, a consequence of the unique self. To actualise is to make "actual" (i.e. physical) something which, it follows, is not actual to start with. It is not the same as fulfilment.

The tendency might be phrased as the desire to become frequently what one idiosyncratically is, to become everything that one is capable of becoming. The specific forms that these needs will take of course vary greatly from person to person. For one individual they may take the form of the desire to be an excellent parent. For another they may be expressed aesthetically, and for still another they may be expressed in

painting pictures or intellectual achievements. At this level, individual differences are greatest. However, the common feature of the needs of self-actualisation is that their emergence usually rests upon some prior satisfaction of the physiological, safety, love and belonging, and esteem needs. This is also true if a person participates in designing his own house such that, only when the house is sturdy and weather-tight will he experience the sense of pride and self-actualisation being fulfilled. This will also support the views of sharing in which the community and people participate in the processes of designing their environment. One may find many examples of traditional architectures where sharing and participating contribute very much to solving problems or fulfilling community needs from within (Rudofsky, 1981).

2.8.6 Cognitive and Aesthetic Needs

The desire to know and to understand, develop one's knowledge and systematise the universe has been considered in part as a methodology for the attainment of basic safety in the world. When a person becomes more confident and content within oneself a wide range of opportunity becomes available and the appreciation of beautiful things and knowledge becomes more real (Maslow, 1987).

There are architectural as well as other values that are shared by many if not most people in a community, a country, or even a part of the globe. These shared aesthetic qualities such as unity, harmony, balance and symmetry are an essential part of architectural design. However, aesthetic needs in architecture recognise a mix of physical and cultural influences that create an aesthetic quality that is complex and holistic and therefore requires a deep and living experience of people's expectations and the way they participate in the collective actualisation of their own cultural values. Architects require to be in a strong contact with such people in order to be able to

understand and respond to their preferences and needs. Some architects, being aware of the difficult nature of the aesthetic task, establish their own aesthetic themes which they then express in their buildings. In many such occasions the client is unable to express his opinion on the assumption that the architect is more knowledgeable in his work and therefore the client never felt they could proffer any role in the production of architecture. On the other hand we find many valuable designs that are the expressions of their society's cultural values such as privacy and therefore people will share with the architect's full appreciation of these works.

According to Maslow's Model, cognitive and aesthetic needs are the higher and more important ones, because they are very highly sophisticated. The implication of this in architecture can be observed easily. For example when people fulfil the basic needs addressed by the building of a home, such as those related to climate, protection and the like, they invariably achieve these always in an aesthetic way. For example when people in traditional Muslims cities produced the wooden engraved and latticework screen (*Shish*) to respond to climate requirements such as for ventilation to reduce the radiation generated by direct light and to provide women with private visual access to the outside they were responding to many socio-cultural requirements. They also produced different patterns and designs (chapter eight figure 7.36). This leads people to experience the aesthetic appearance of their dwellings rather than the practical reasoning of these decorations.

This example provides a strong link between the lower basic needs and the higher dimensions of the aesthetic experience. Such a link has to be acknowledged in architectural designs so that the aesthetic quality needed by people for expressing their values and needs can be appreciated.

In using Maslow's classification, it must be recognised that an individual's or a group's perception of its needs cannot be simply correlated with socio-economic status. For people at every socio-economic level, the needs for belonging or for esteem remain very important. Some hypotheses can, nevertheless, be suggested about the relative importance of identity for people with different basic needs. When people are struggling for survival, the environment identity will not be the focus of attention. The physical character of the environment will still communicate messages about the status of the people concerned; they are likely to be well aware of this, but they will have little energy and thus inclination to act to purposefully change the identity. For people whose prime concern is with safety, architectural variables - particularly those associated with symbolic barriers representing territorial demarcations become more important, but it is in fulfilling belonging and needs for esteem that architectural symbols are particularly important (Maslow, 1987). It is worth noting here that, at each level in Maslow's hierarchy, needs are largely fulfilled through social and cultural mechanisms unrelated to elements of the architectural environment. The attributes of the built environment are, however, important, so it is necessary to recognise the variables that can carry symbolic meaning. These architectural variables include spatial configuration, building configuration and materials. In this understanding, it is clear that any abstract interpretation of user needs in the built environment may fail to meet people's needs.

2.9 Adaptation

From early times, man has been compelled to cope with any new situations experienced in his every day life. If we look through the long history of man we will notice that, in adapting himself to his environment, man has altered that environment to suit his evolving needs. People modify either their environment, their habits or both, in order to achieve a way of life better suited to their needs and tastes (Dubos, 1980).

The term adaptation is unclear because it can mean different things to different people. It refers to the changes in culture or behaviour, which are associated with changes in an environmental setting (Berry, 1976). Adaptation is a natural process that always seeks to solve contingent problems with nature. The adaptation to environment has been produced through the process of trial and error, and the successful results retained and passed on through cultural traditions which include knowledge, skills, technology and science. For example when it is very cold the first thing we do to adapt ourselves to the new situation by wearing thick and warm clothes. The opposite happens when it is very hot; we remove or reduce our clothing. Sometimes we use water to regulate our temperature by swimming or having a bath.

2.9.1 Adaptation and the Formation of identity

Greenough 1947 argues that every detail of organic form has its functional purpose. The law of adaptation is the fundamental law of nature in all physical and social as well as cultural structure (Greenough, 1947). It has also been suggested that in nature, forms are the outcome of the environment. Therefore, the environment decides function, and forms are the result of function (Eiditz, 1881). These, consequently and in accumulation, become the ensuing environment.

Building forms must be adapted in an equivalent way to the social and cultural environment in which they are situated and the functions resulting from the environment must be fully expressed in the architectural form. When various tools or objects are put to use, they are subjected to a variety of tests: of their strength, their suitability, of whatever characteristics there are which confer appropriateness or fitness for their particular function. Of course there is the important matter of local resources, which determine the material available for constructing tools. Effects also will be seen

in the tools and manufacturing processes used to make more complex culture artefacts, such as entire buildings and cities.

Many cultures create objects that represent successful solutions to distinctive, pressing contingencies. They therefore embed, along with their form as one can now experience them, a method for making and requiring. Large numbers of the same design are made and those designs which contain slight variations in their forms, may confer a particular advantage. Such varieties tend to be preserved or selected while less fit ones will be lost. They will either tend to survive longer or perhaps they will be preferred as models when it comes to copying their forms in new tools (Steadman, 1979).

It is possible that variation may be introduced accidentally, at random; selection processes will ensure the spread of the advantageous features and the elimination of the disadvantageous ones. It is the set of genotypical instructions or cognitive knowledge which is somehow passed from one generation of builders and craftsmen to another. Thus Steadman talks of "a series of buildings, one succeeding the other, and the last continuing not only all the improvements before introduced into all the former examples, but contributing something new itself towards perfecting a style" (Steadman, 1979, p83).

It can be assumed that the form of building adopted in traditional settlements has been successfully repeated through time, and transmitted from one generation to another, by the process of knowledge. This typology and its authentic form, the essence of which is deeply felt through its adaptability to its setting and its high performance within environmental conditions, can be seen as good lessons for the new generation of that area. It is important to notice the necessity of a considerable length of time over which

the evolutionary process must be spread and made a series of buildings with slight variations before selecting those with somewhat more satisfactory performances.

2.9.2 Theory of Prototype Pattern

It is important to know that responses to the physical conditions of a setting, including its climate and topographical features, are not arbitrary. These come to form a system, which is observed to be repetitive and is the basis for recognising the identity of built forms. Therefore, the study of prototype pattern is intended to explain this. Briefly, every thing is developed from its prototype, and it is easy to refer any thing to its origin or its prototype.

Ujam (1987) argues that it has been suggested that one of the most important aspects of the visual perception of an object is pattern recognition which identifies objects in the visual field. Architecture provides observers with the ability to recognise different visual demonstrations of for example, the column, as instances of the pattern "column" in terms of its basic performance, in spite of the variation in size, shape, length, style and materials. It seems clear at every general level that it involves matching information in one memory store (the sensory register) with information in a second memory store (permanent or semantic memory).

The prototype theory claims that similarities among related objects connote familiarity upon them and thus play an important role in recognition. Prototype theory argues that each stimulus or object is a member of a class of objects and shares key attributes of that class. Recognition involves comparing objects to prototypes, which are abstract forms representing the basic elements of a set of objects. There is no doubt that, in architecture, those prototypes were subconsciously evolved or built to achieve the

optimal function and conformity with the physical and economic contexts on which various versions of the successive types of objects were based. The obvious advantage of the prototype theory is that information stored in permanent memory consists of manageable number prototypes rather than a virtually infinite number of templates.

The theories of prototypes can indeed be invested in the field of prototype architecture. They provide the clues as to how the builders and craftsmen of vernacular societies implement an inherited knowledge of building arrangements, elements, articulation, etc. which usually evolves in response to image (prototypes) stored in the permanent memory system. It is by actualising these images of architectural elements that a design will tend to more appropriate, fit and be appreciated (Ujam, 1987).

2.9.3 Levels of Adaptations

(Masaud, 1996) stated that there are three levels of adaptation. The first level concerns adaptation to the physical environment, which acts primarily towards finding protection against various physical forces. The second level concerns the adaptation to the social environment, how to live in a group and adapt to the rules and conventions which govern, and are understood by, the society. The third refers to cultural adaptation, which is concerned with responses to the various aesthetic and symbolic values that a society evolved over time and which language, rituals and traditions mediate. The best demonstration of this concept is achieved through the diachronic analysis of the early settlements, which emerged in the different parts of the world. The following is further elaboration on the three levels of adaptation (Masaud, 1996).

2.9.3.1 Physical Adaptation

At this level the prime concern is directed towards making arrangements to respond to the various elements as well as the external physical forces that exist in a particular place. These arrangements aim at maintaining a comfort and balance between the human body and nature's characteristics. The result of these adaptive processes is an evolution of the idea of shelter which expresses man's understanding of the resources available to his particular environmental setting. The shelter and the basic layout of the settlement is also moulded by social and cultural pressures.

2.9.3.2 Social Adaptation

This level defines a system of rules, norms and patterns of social behaviour which could be seen as a conscious social adaptation to the primary physical structure of the settlement, as initially developed in response to the natural and physical environment. At this level, the prime concern is directed towards establishing the relationship between the individual and the group so as to maintain a sense of harmony and co-existence through these rules.

Privacy, personal space, territorial behaviour, territorial ownership and community relationships evolve as systems expressing a social consensus regarding shared values and concerns for the survival of the community through obeying these norms of conducts and behavioural rules. The constellation of these social and community systems would then define the characteristics of the concept of habitat.

2.9.3.3 Cultural Adaptation

It is suggested that the embodiment of all values, which has co-evolved with both social and physical patterns, would be achieved in the cultural context. This is the media for

abstraction of those values and norms which are the main subject of arts, symbolic rituals and the semantic structure of languages. This would suggest that cultural adaptation is holistic and therefore can be seen as the actual interpretation of environmental and practical factors that are crystallised into the more abstract forms and elevated styles of art and architecture. Cultural adaptation would also be the basis for people's attachment to their place and therefore the perception of its spirit would define their identity.

The process of adaptation in the field of architecture is motivated by the hierarchical order of human needs which provide, in the end, the basis for the interrelated levels of adaptation. All processes are expressed visually and spatially in the built environment. One stage would come into existence as a result of the fulfilment of a set of needs related to particular motivation hierarchy. This would lead to further adaptation that is needed to be achieved in order to move further in the hierarchy.

In reality we do not see these levels as separated but respond to the totality of the environment as a holistic entity, which embodies these values collectively in the form of culture. It is also important to know that each adaptive level produces its own aesthetic characteristics which usually stems from the subject of adaptation, such as nature in the case of physical adaptation or the social context in the case of social adaptation

2.10 Transformation

According to Piaget (1972) transformation is "the constant duality, or bipolarity, of always being simultaneously structuring and structure" (Piaget, 1972, p10). It is an ongoing process of change in form. As a result built environments are systems of transformation of physical and socio-cultural underlying realities which can not be

comprehended purely through the physical three dimensionality of buildings. Such a consideration applies equally to almost every phenomena. Myths, for example, are structures in which particular forms in nature have been transformed over time into mental structures which resemble the original forms of nature but which acquired a new content. According to Piaget, these contents could be forms for previous contents and contents to new forms and so on. The idea of evolution then is linked to transformation of forms and contents which constitute structures (Piaget, 1971). It follows that in architecture the various components acquire their contents (i.e. meaning) as much as they form part of structure, which includes people's perception and symbolic value. Maintaining the order in architecture would imply that changes which are observed in building designs will only be understood from within the culture in hand as long as they are the result of social transformation (Guidoni, 1979). This is possible because the symbolic meaning and subjective values which emerge from the transformation processes, according to Structuralism, are becoming part of that structure.

The transformation of the built environment not only can be seen in the evolution of building techniques and methods over time, but also can be understood from the way the perceptual meaning of it changes overtime. The arch and the vault are examples of transformation and evolution of an architectural element through time. Changes made to their form and structure are recorded across geographic locations as well as in different times. These elements have at the same time adapted to the environment they were used in, mostly seen in the materials used to form them.

2.11 Identity as a System

It is therefore possible to consider both man and the various environmental factors as being engaged in a systemic relationship. The idea of system was introduced as a

different way of understanding the universe and in order to address inconsistencies in the scientific explanation from physics which prevailed for some time (von Bertalanffy, 1968). The universe and the environment were seen as offering chunks of information and hence each element in the universe would be studied as a unique entity.

According to von Bertalanffy, who outlined General System Theory in the fifties, a system is a complex made up of entities of lesser order, forming patterns of relationships that are in some sense regular. Since very simple and irreducible objects have nowhere been discovered, it is clear that there exists nothing which, in von Bertalanffy's terms, could not be described as a system. The application of system thinking has extended to numerous areas and disciplines, particularly the social sciences and biology where systems are considered to be open. Similarly the environment could be seen as consisting of a number of entities tied together with particular relationships which are governed by laws.

Recently, the system approach has come to be applied in planning and urban design. It has as yet hardly been applied in the domain of architectural and building designs. However it was suggested that a field or an environment is not an aggregation of elements, but an expression describing a set of relations between things governed by overriding formative laws (von Bertalanffy, 1968). **According to the thesis, this corresponds strongly to the idea that identity is governed by the hierarchical order of human motivation, which functions to establish a form of regularity in the interaction between man and the various elements of the environment.**

Buildings as well as cities are therefore systems which incorporate a number of components and their relationships. These come together in patterns specific to their

place, culture and could be useful in explaining many environmental phenomena or architectural patterns as they appear to the observer at the time of observation. To accomplish the fullest comprehension of these systems, time needs to be recognised as an integral component. Hence the history of that phenomenon and how it evolved must be seen as being a substantial past of and explanation for what one sees.

2.12 Summary

This chapter discussed the concept of identity and its aspects. The intention was to indicate a particular way of thinking about the concept of identity and how to approach it within investigations of the built environment.

The analysis of the philosophical theories that deal with the concept of identity showed that none of these has provided us with a broad description of identity and its manifestation in the built environment. Rather, they focus on some of its essential aspects and concentrate on a limited scope and from a particular viewpoint. Yet and from a very general point of view, we can define identity as: *the qualities that facilitate any thing, might be person, building, city etc., to be singled out or picked as different from other things.*

To be communicated, identity requires a system of messages which reflects its essentials. After recognising the sense of identity, people use this sense in their interaction with others through different manifestations. For communication to occur, manifestation must be legible.

In order to establish a specific identity, manifestations must be shared and learned. The essence of identity is to share and learn its manifestation between units of the system groups, sup-groups and individuals. The current research employs a more specific definition considering the objectives of studying the identity of the built environment. This definition is that identity is: *the qualities in the environment that gives a place its specific character to be easily differentiated from other places, these qualities transformed over time from one set to another.*

Identity can be expressed within the environment through the use of visible and non-visible manifestations. Both are important and highly interrelated. The non-visible manifestations could be reflected on the meaning of the built environment. The meaning is the critical and central aspect of the built environment, and it could be said that meanings mediate between people and objects. The approach adopted in this study is to investigate both the visible and non-visible manifestations of identity within the built environment. Literature review suggested that meaning is a combination of beliefs and values that are elicited in the mind through the perception or other use of specific forms and features.

CHAPTER THREE: IDENTITY AND NATURAL ENVIRONMENTAL FACTORS

3.1 Prologue
3.2 Geographical Factors
3.2.1 Venice
3.2.2 Edinburgh
3.3 Climatic Factors
3.3.1 Examples from the Arctic Area
3.3.2 Examples from Hot and Dry Areas
3.4 Resources and Building Materials
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3.6 Identity and Environmental Control
3.7 Summary

(3)

IDENTITY AND NATURAL ENVIRONMENTAL FACTORS

3.1 Prologue

"There has been a confusing array of terms used within environmental psychological literature to define a range of relationships between the environment and identity" (Clare, Twigger-Ross and Uzzell, 1996, p205). In this chapter the author examines the relationship between adaptation to natural environment and identity and to understand the role of the natural environment in the formation of identity.

The term 'natural environment' refers to places and their topographical features, such as mountains, valleys, rivers and seas. It also refers to their environmental conditions, such as temperature, humidity, wind and rainfall and to the place's natural resources such materials, minerals, social, flora and fauna. All these variables of the physical environment greatly affect people's behaviour (Abou El-Ela, 1995). It is noted that some features of the environment exert a strong control on people's behaviour. For example, people who live in a dry environment need to rely more on their own resourcefulness than do those who live beside water and have moisture for drinking, irrigation, transportation networks and power readily available.

Generally speaking, natural environmental factors represent the predominant factors that affect the identity of people and their built environment. They distinguish the different regions and countries, shaping the urban form of the cities and also their spaces through determining a sense of appropriateness in location and design of sites. Owen (1991) stated that: "Over the centuries, but less so in recent decades, unique places have been shaped.

Often the natural environment has been a significant influence the uniqueness of place, whether through responses to characteristic landforms and climates or in the use of local building materials" (Owen, 1991, p128). Also: "The location and form of settlements were influenced by the need to overcome problems of exposure, slope and drainage and to take advantage of benefits provided by sunlight, agriculture soil quality, water and vegetation" (Owen, 1991, p1). As a result, the local identity of different places has been created. This explains the importance of concentrating on these natural elements in the design process.

The natural environment affects the identity of its people and their built environment in two main ways: directly and indirectly. The direct influence of nature in the formation of the identity could be seen through the effects of different natural elements of the environment, while indirect influence comes from its hidden dimensions (this is explained in more details in the following sections). In reality, the effects of geographical, climatic and natural resources factors on the built environment are correlated to each other but for the purposes of this theoretical study, they are separated to identify their components.

3.2 Geographical Factors (Landform)

The geographical environment refers to the natural features. These are the God-given elements of nature as they are distinctly placed, i.e. rivers, valleys, mountains and oceans. These features can be either major or minor. The major natural features are the dominant ones that can be altered little, if at all. They are unchangeable features and must be accepted as they are and accommodated by any human action. On the other hand, the minor features such as small hillocks, groves and streams, all of which can be modified and are of lesser consequence (Abou El-Ela, 1995). This part is concerned with the study of the relation

between geographical factors and the identity of people and their places, urban form, the layout of buildings and landscaping.

Land is the surface on which most of human activities take place. It affords more than just spaces; indeed in all cultures land is, although to varying extents, held to be sacred. Land gives shape to activity and experience (Owen, 1991). Many older cities have an undeniable sense of identity because site and urban form, architecture and landscape, have become one. A key to Istanbul's identity lies in its skyline where topography and architectural form are fused into a single symbolic expression of culture and nature. There is a sense of a city adapting itself to the constraints and opportunities the landscape affords.

"Landform, indeed, was the platform for virtually all settlements in terms of both its shape and structure. Where the landform was varied in shape, whether dramatically or modestly, this directly influenced the physical form and character of settlements. Even where the land was flat this in itself influenced the resultant physical character, often encouraging the creation of geometric layouts. Where the landform was not the principle platform for settlements, as in Venice or Amsterdam, it was a different natural element, water, which largely shaped the form and character of the city. Many of the most memorable European cities, such as Florence, Budapest or Prague, were shaped by a combination of striking landform and water." (Owen, 1991, pp4-5).

Topography is that part of geography determined by contour and slope. It is a primary consideration that determines the acceptability and value of any site. It greatly affects the layout of buildings and how they can be arranged. This dictates the basic spatial relationship and building organisation. Without denying the role of other factors,

topography is one of the most important factors which gives settlements their character and distinctive pattern.

We cannot neglect the advantages of a densely contoured (hilly) topography. The extended nature of a plain may suggest a sprawling form, or by contrast a clustered development reinforcing the sense of place, where valleys tend to generate linear groupings of built form and people chose to gathers as tight clusters on ridges and hilltops. Buildings may be designed to reflect local landforms or may be incorporated to the landform. Thus building forms may respect surrounding forms, such as a building stepping down a hillside, its roof pitch matching the slope, or buildings may add contrast to an area such as a tower in predominantly flat landscape (Ujam, 1987).

Landscaping of space has a clear relationship with the geographical factor, through both the water and soil elements. Generally speaking, water bodies have an influence on the urban form by affecting building arrangement, or by imposing a special kind of land use. Soil controls the structure of the building by offering only its carrying capacity, and also affects the building organisation by its role in the laying out of the infrastructure system. Furthermore, soil and water together determine the effectiveness and ability for cultivation and natural growth (as in forestry). It is essential here to note that the existence of these landscape elements has many influences on urban as well as rural spaces. In equatorial countries, urban spaces need to make themselves useful in hot weather to achieve human comfort. With trees or otherwise, they can provide shade, use plants to refresh the air and surface treatment (e.g. greenery) prevents reflection of the sun's rays. In addition, these elements affect the urban space where they are used as architectural elements in both vertical and horizontal plans.

3.2.1 Venice

Venice, built on 118 islands linked by more than 400 bridges, forms a unique city. The landform is a successive interaction of elements, which are characteristics, its shape has been determined by the movement of water, and its boundary is the surrounding lagoon (see figure 3.1).

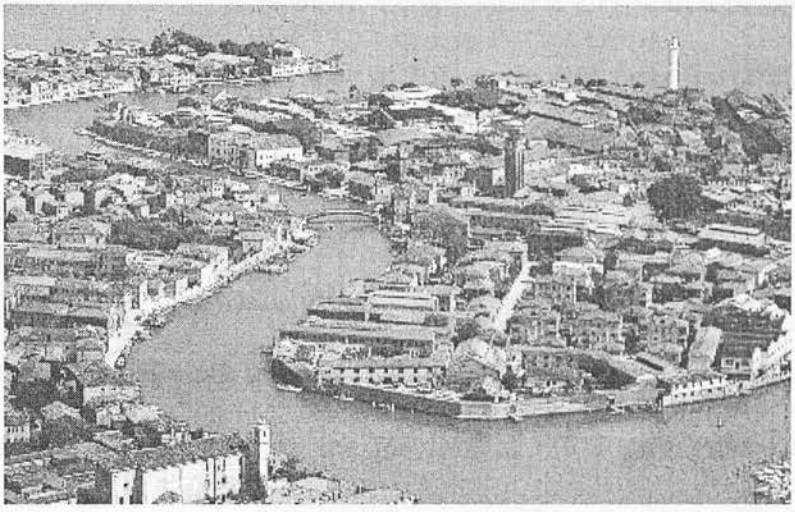

Figure 3.1: General view of the city of Venice
Source: Rossi. G and Masiero. F, Venice from the air, George Weidenfeld &Nicolson Limited, 1988, p107.

Venice is an elegant, distinctive city, with character and individuality, a place full of interest, which encourages anybody to find out more and more about it. The canals, with their waterfronts are the features which give the world renowned identity of the city and which make it special place. Water is the basic natural factor behind the shape of the city and its pattern of growth. The city grew following an informal and irregular pattern of growth related directly to the natural environment (see figure 3.2).

In Venice, the visual sense meets another world, one of reflection; deriving from water another image of the city and of its sky, but one with varied colours, an evanescent suggestion of a new city, more rich and intense. There is no other city in the world

established along such a strong and dependent relation with water, making it a predominant urban element, eliminating barriers, and helping to enhance the identity of the built environment not only as a moderator element producing aesthetic, but also functionally and architecturally (Rangel-Mora, 1981).

The lagoon characteristic has, in turn, made Venice itself a city with a phantom presence. Brown (1997) examines it as being a tissue of half truths and false posturing, its heritage swerving from the Trojan to the Roman to the Greek, the Judaic a city of masquerades, optical illusion and cryptic literature. The poetic city-image of Italo Calvino (1974) are all derived from the labyrinth of Venice. Also, Rasmussen (1964) sees in the details of its buildings the presentation of a city built as light as cloth and real as stage scenery, and that floats like a lily. He cites particularly the massing of the doge's Palace that, counter-intuitively, becomes denser as it rises and has an ad-hoc 'cutting off' of the marble patterning of its elevation, and the rope art fabric motifs of the Ca d'Oro.

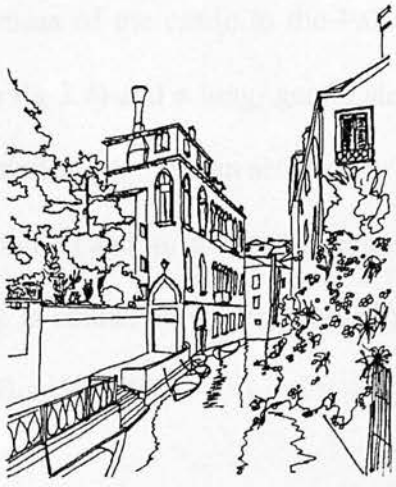

Figure 3.2: Canals directly related with the houses
Source: Rangel-Mora. M, Natural Elements in the Built Environment (Unpublished Master Dissertation, Heriot-Watt University, 1981, p85).

3.2.2 Edinburgh

The city of Edinburgh is considered by many people to be one of the most beautiful and distinctive capital cities in Europe. Its magnificent setting is a significant reason for this nomination. Edinburgh's identity and character has been built and kept jealously through many centuries of history; this identity and character derived from its landscape setting of cold and dramatic volcanic remains overlooking the sea. The physical setting ranges from the mountain landscape of the Pentlands to the estuarial coast of the Firth of Forth. Geography was the dominant factor in Edinburgh layout, natural constrains were accepted (see figure 3.3).

In Edinburgh the built and natural environments come together. The city seems to emerge from its landscape (see figure 3.4). The centre of the city is a castle built on the plug of solid lava from a long-extinct volcano. Eastwards from this plug stretches a natural ramp formed as East-going glaciers stripped the 'cone' from this volcanic plug and deposited it as a trail of rubble. This is the line along which the Royal mile, Edinburgh's foremost medieval street, joins the fortress of the castle to the Palace of Holyrood. Other features hills (such as Calton Hill see fig 3.4) and a long, gentle slope to a northern estuary shore, set a powerful and inspiring platform for human settlement. Today, the views along Princes Street are terminated by Calton Hill and its nineteenth century monument to the Napoleonic Wars. The magic of this city is contained by the marvellous interplay of its topography, built form, and open spaces (Hough, 1990).

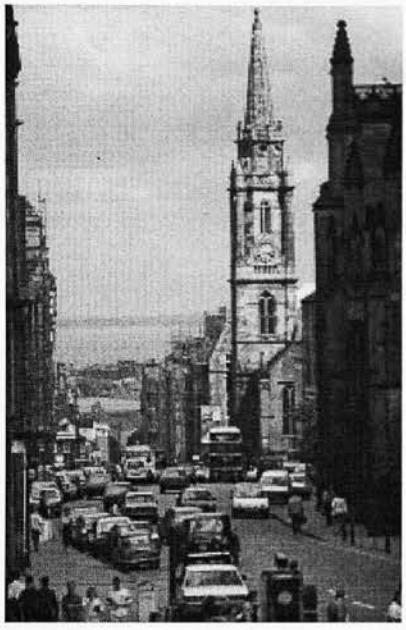

Fig. (3.3): The role of the landform in forming the identity of the city of Edinburgh is very evident in the different levels from the sea to the top of the hills: view down the Royal Mile

Source: Crumley. J and Alexander. M, The Royal Mile, Moubray House Publishing, Edinburgh, 1989, p56.

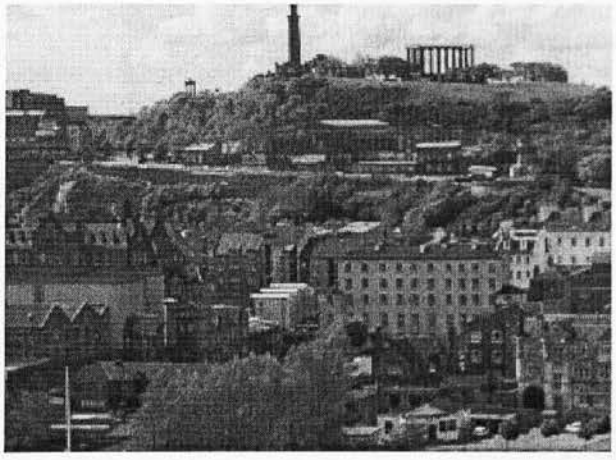

Fig. (3.4): The interaction between natural and built elements in the city of Edinburgh.

Source: Waed. R, The Spirit of Edinburgh, Richard Drew Publishing limited, Scotland, 1985.

3.3 Climatic Factors

Climatic factors include the degree and range of temperature, humidity, rainfall, flora and fauna. All these have a major influence on people, although strong and typical climatic elements are matters far beyond man's control. Man can only modify the local climate through the components of the natural environment; the soil could be modified; water could be supplied; greenery could be planted. Despite this, there is nothing that can be done about the macroclimate of any area, must be accepted. Within the overall picture, climate, as a natural component of the environment, varies widely on earth, even in parts of the same region of the world (Abou El-Ela, 1995).

As different climatic regions are direct determinants of vegetation, animal communities, and landforms, so different climates also affect vernacular forms of building and landscape. In the absence of the technological means to countermand the climate, the built form has traditionally responded by developing direct and sometimes ingenious ways of moderating its effects. Possibly no other single factor has been as influential in creating a diversity of traditional forms and modes of living throughout the world. There is also little doubt that the most extreme climates have produced the greatest regional variations. The greater the constraints, the more powerful the incentive to find ways of providing human comfort within the means available. Conversely, the more benevolent the environment, the greater the influence of culture on form (Hough, 1990).

Also there is little doubt that climate is one of the most important factors that influence the identity of the urban and built form of any built environment. "One need not to deny the importance of climate to question its determining role in the creation of built form" (Rapoport, 1969, p18).

Owen (1991) wrote that "the design of building and related outdoor spaces evolved in relation to the landscape, the climate and the outdoor living patterns of people's activities" (Owen, 1991, p2).

One of the main goals in architecture is to control the thermal conditions through designing physical environmental elements. For example, within arid zones, the most effective factors on the urban form are the high temperature and solar radiation. These must be addressed successfully through providing maximum shade in streets and public open spaces, as well as within houses. The urban form should also minimise direct and indirect solar radiation to avoid heating the air. It is evident that the roof is a determining element in the general form and appearance of regional house type. There is also a marked correlation between the zone of a climate map and the types of used roofs. In northern Europe, roofs are sloped, pitched or curved for winter snows. In hot climates they are tilted for insulation against the sun, or lie flat to double as extra living spaces in many Mediterranean countries were they are used for sitting out on in the cool of the evening. In such countries the climate has affected the ways that buildings are arranged in relation to each other.

3.3.1 Examples from the Arctic Areas

Survival in the polar regions would not be possible for extended periods without effective means of shelter. Without shelter a human being will soon die when exposed to the very low temperatures that are normal in these places. Eskimos have been able to live in the severe conditions of the Arctic because they developed means that give them protection. The traditional Eskimo shelter was a perfect adaptation to a nomadic life and to very low temperatures. The igloo that originated in and remained an invention of the Canadian Central Arctic was a house built of the only available material: snow. It resisted winds and

minimised heat loss under the harshest conditions. It could be made in an hour or less and later abandoned when the tribe moved on (Hough, 1990).

The Eskimo igloo has often been characterised as the ideal and graceful solution to the harsh, cold and windy climate of the Arctic. For example, the hemispheric shape maintains the least wind resistance and the igloo is usually located parallel to the wind (there is a tunnel entrance) to avoid its full force. In addition, a small wall is constructed at the tunnel entrance to keep the wind from blowing in. Eskimo encampments are also placed to avoid extreme exposure to the severe elements of the Arctic. An igloo village is usually established near the sea in a place sheltered by adjacent mountains, to avoid as much as possible the greatest severities of the wind (Rapoport, 1969).

Many other design features of the igloo exhibit responsiveness to the climate, for example the tunnel entrance into the igloo is specifically shaped to prevent cold air from flowing into the dwelling. There are often additional, separate sections within the tunnel to encourage heat retention. One tunnel entrance may serve several dwellings that are connected by interior passages. This helps retain heat and avoids exposure to the outside. The interior of the igloo is elevated above the level of the tunnel (see figure 3.5). Because heat rises, this design feature further preserves heat. Interior heating is partly accomplished by seal oil lamps; these operate quite well in the hemispheric shape of the interior, which is more efficient than a rectangular surface in preserving heat. Furthermore, the interior walls partly melt and then freeze, which forms a strong seal. It is said that the igloo becomes so strong because of this melting and freezing that a polar bear could walk across the top and not damage the dwelling (Cranstone, 1972). By hanging animal skins on the inside walls and ceiling to create an air space, the occupants achieve additional warmth by means of a

storm-window effect. Through all these heating techniques, Eskimos are often portrayed as wearing very little clothing while in the igloo (Oliver, 1969).

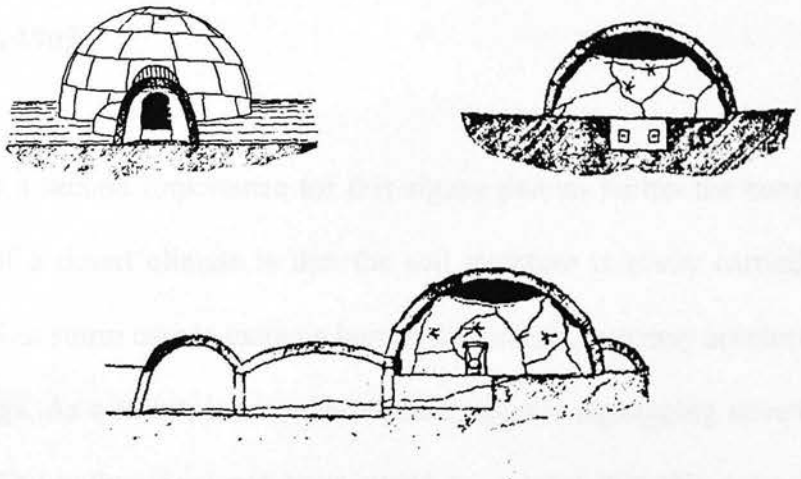

Figure 3.5: The Eskimo igloo is the ideal and graceful solution to the harsh, cold, and windy climate of the Arctic
Source: Hough. M, Out of Place, 1990, p52.

3.3.2 Examples from Hot and Dry Areas

At the other end of the scale, human response to heat has resulted in equally regional solutions to the problems of living in climatically difficult environments. Houses in towns and villages in the Middle East were grouped close together to shade each other. The courtyard house and garden with its cooling plants and water have long been associated with hot, dry conditions (Hough, 1990).

Compact forms are effectively adjusted to mitigate the heat and climatic stress of arid zones. Their compatibility is not only for the climate but also responds to social and economic aspects. Throughout history, Middle Eastern compact cities have been built for such reasons. The ratio of shaded to exposed space is created through the vertical direction. The proportion between the horizontal distance at the ground floor and the vertical height of the façade, also spacing between the opposite buildings, increase the shade within the

external space. An example is in the construction of a second floor wider than the first, and in covering over the public spaces such as markets (suq). The same effect was achieved in the horizontal direction through the pattern of layout, which was based on zigzag patterns (Rapoport, 1969).

There was a second importance for this zigzag pattern within the compact form. Another problem of a desert climate is that the soil structure is easily carried by the wind. The resulting dust storm causes extreme human discomfort, and may accelerate the deterioration of buildings. As a result, in terms of climate, narrow zigzagging streets were a successful solution. The author does not here intend to suggest that this pattern was not also the reflection of other factors such as technological and social aspects.

The urban form - especially in terms of its visual aspects - is shaped by walls and façades of buildings which formulate the vertical enclosure and connote identity onto the space. Climate is one of the most important factors in shaping these walls and façades. While the relationship between solid and void indicates the amount of heat radiation that penetrates from outside to inside, within the traditional Middle Eastern cities three side walls were usually blanked and the fourth side was distinguished with its high ratio of solid to void. Wooden lattices (*Rawshan*) prevent both direct light and sun from fully penetrating houses, and have become the main features for these houses. Increasing the shades created by manipulating the wall plane and by using projecting features such as oriel and bay windows is an effective way in reducing the effect of the reflection of solar radiation (Fathy, 1973).

3.4 Resources

Resources are what nature affords us in materials, animals, plants and so on. In other words these are the "features which help human beings to solve their problems with the environment" (Masaud, 1996, p111). In this regard, resources have a priority in shaping and affecting the development of the identity of man and the built environment. It is also logical that the availability of certain types of resources in a particular place is responsible for establishing a distinctive economic structure which would result in certain social patterns being developed. People were more dependent economically upon the immediate natural environment than they are nowadays. In traditional communities, a high proportion of the population worked in primary employment such as agriculture and fishing, which brought them into direct contact with nature and demanded an understanding of it (Owen, 1991, p1).

It is usual, therefore, to find this element influencing man and the built environment. The natural environment provides to us many resources that assist a way of. The environment affords many different kinds of food and many different ways of obtaining food. It affords various sorts of pre-existing shelters or places to hide in, holes, crevices and caves, and various materials for the making of shelters such as mounds, nests and huts (Gibson, 1979, p69).

Building materials such as stone, mud and reed are among the most important elements in the nature that affects the identity of dwellings in places across the world. Owen (1991) states that "local building materials often had to be used and this contributed to the evaluation of unique and attractive places" (Owen, 1991, p1). We can see many examples over the world: Eskimo use snow, a vast supply of which is readily at hand; palm leaves are

used in the South Pacific; and bamboo is used in many parts of Asia, where it grows plentifully.

Dwellings made of reeds

Dwellings made of mud

Dwellings made of sticks and felt

Dwellings made of thatch and wood

Figure 3.6: Dwellings made of the available materials.
Source: Rapoport. A, House Form and Culture, 1969, p27.

3.5 Indirect Factors

There are general orientations, attitudes and beliefs that people hold about nature and the environment. People may have positive or negative feelings about the built and the natural environments; they have diverse attitudes towards various places, such as mountains and oceans.

Altman (1980) cites Tuan's interesting analysis of attitudes held towards such places. Tuan argues that mountains often were symbols of the power and dominance of nature. They therefore play an important role in the religion and cosmology of many cultures. Islands

have been perceived positively as idyllic places where one could live away from the burdens of complex societies. He adds that some places have been almost universally viewed in a positive way. Beaches, seashores and riversides were probably the original habitats of people. Valleys or basins, coupled with the streams and rivers that flow through them, have been perceived as desirable places. Valley may symbolically represent a shelter, may be a place protected from the elements by surrounding mountains and hills and a site where one can easily farm and grow food. Valleys and their water supplies provide a continual source of new and rich soil and are generally a placid and secure place (Altman, 1980).

Norberg-Schulz (1980) stated that "usually creation is understood as a 'marriage' of *heaven* and *earth*" (Norberg-Schulz, 1980, p24). Different cultures view the world along two main approaches: the vertical dimension seen in the division of the cosmos into sky, earth, and underworld and the horizontal dimension seen in distance and system of orientation developed in different cultures, such as the four cardinal directions (Altman, 1980).

3.5.1 The Vertical Dimension

Heaven, earth and hell are the three vertical arranged strata representing the universe for some cultures. They see the endless sky, and this invites them to speculate about heaven; they are on earth, and it is all around them every day. Hell is not so visually evident, but it is easy to extend the vertical dimension downward, especially as a negative pole that is a counterpoint to heaven. Thus some cultures refer to the heaven and stars as above (rather than distant) and they tend to equate above with good. That which is above is a place of freedom and the good life, perhaps symbolised by the sun rising to provide warmth and help nature supply its nourishment. Below is typically bad as the sun drops below the earth,

cold and fearful night prevails. The importance of the vertical dimension is that up correlates always with the ideal position. Height is also associated with status and positive things. The positive connotations of high places are evident in people's lives. It is important to realise that not all people attach meaning to verticality. For example, people who live in the heavily vegetated rain forest can barely see more than hundred yards in any direction, because the forest is so thick. The sun's rays are more scattered, the stars are barely visible, and they therefore have little reference to heaven and sky (Altman, 1980). Also many Amerindian tribes see the ground as being a sacred place where 'the past' has solidified and in which dwell their gods and thoughts. The Hopi build *Kivas*, sunken rooms, in which they can contemplate this other worldly realm (Whorf, 1956).

Taking the Arab as an example, it is possible to examine how nature and the environment contribute to the characteristics of both the individual and the style of housing. Arab people attach considerable religious meaning to their homes, referring to the vertical dimension. The sky is a roof over the earth, and heaven consists of hemispheres stacked above the sky. The house itself is considered to be a small-scale version of this cosmos. The natural environment of the Arab is the desert. It has formed his habits, his view of life and his culture. He is indebted to the desert for his simplicity, his geometry, his love of science, mathematics and astronomy, his way of life and his family relationships. It is also important to see how the desert influences the planning of the cities, once the decision has been made to settle down in one place and have a house for a family. Since the Arab knows the severity of the climatic conditions in the desert, he does not see any need for his house to be open to the outside on the ground floor. The only merciful element for the Arab is the clear blue sky which brings a pleasant breeze in the evening; more than that, it is the main

source of water, the giver of life. The vast desert is not as big as the sky, thus, it is no wonder that, for the desert dweller, the sky becomes the home of God.

Fathy (1973) suggests that the instinctive tendency to see the sky as the kindly aspect of nature gradually developed into a definite theological proposition, in which the sky became the abode of the deity. Now with his adoption of a settled life the Arab began to apply architectural metaphors from his cosmology, so that the sky was regarded as a dome supported by four columns. Whether or not this description was taken literally, it certainly gave a symbolic value to the house, which was considered to be a model or microcosm of the universe. In fact, the metaphor was extended further to the eight sides of the octagon that support, on squinches, a dome symbolising the sky; these eight sides were held to present the eight angels who support the throne of God. Because the sky is, for the Arab, at once the home of the holy and the most soothing face of nature, he instinctively wants to bring it into his own dwelling.

The main method of doing this for the Arab is the courtyard. The house is a hollow square, turning blind, windowless walls to the outside, and with all its rooms looking inwards into a courtyard from which only the sky can be seen. This courtyard becomes the owner's private piece of sky. The space enclosed by the rooms of his house can alone induce a feeling of calm and security that no other architectural feature can, while in every case the sky is, as it were, pulled down into intimate contact with the house, so that the spirituality of the home is constantly replenished from heaven.

3.5.2 Horizontal Dimension

People see things and places on the earth's surface that are near or far, close or distant. They see the land stretching out on a horizontal dimension. One very pervasive aspect of the horizontal dimension is the idea of centre and periphery. There is widespread bias that the centre, usually focused on the self or one's society or nation, is worthy. Thus, the perception of self-at-centre is linked with what is both desirable and undesirable in the world.

The analogous conception appeared among the ancient Egyptians. They looked on themselves as a superior culture, and they believed that the Nile valley was the centre of the civilised world. The Nile River running south to north, was of crucial importance to the survival of people whose livelihoods depended on irrigation. The Nile provided fertile lands on each side of its banks, and deserts beyond, yielding a cosmology with strong symmetrical values. The earth was believed to be the centre of the cosmos. Above it was the domain of the sky gods, and below it was the under world - each like a symmetrical pan that faced the earth in the centre. The sun was crucial to the lives of the Egyptians. The result was a south-north axis (the Nile) and an east-west axis (movement of the equatorial sun). Such strongly held symmetrical orientation was carried over into architecture. For example, the pyramid is made up of four equal isosceles triangles converging on a single point. The base is an exact square oriented precisely to the cardinal directions. The interplay between pyramid and cosmos is stressed by the precision of orientation. The square base and the isosceles triangle emphasise the urge toward symmetry in the Egyptian life (Altman, 1980).

In summary, the fabric of culture often contains a rich blending of vertical and horizontal dimensions towards the environment. This meshing of environment and culture illustrates

that environment, culture, and psychological processes function as a unity and that one cannot easily determine which factors 'caused' certain outcomes. Often, all one can know is that relations among variables exist and all come together in a coherent pattern that permits people to better understand and live in the world about them.

3.6 Identity and Environmental Control

The natural environment with its different geographical regions, climatic conditions and natural resources provides a natural habitat for all living things. Nature gifts to its life forms a carefully balanced ecological system with a continuously replenishing food cycle that supports life. Some regions have rich fertile lands more suitable for human habitation than others and human life has been sustained and improved by cultivating these lands. It is now evident that the industrial revolution and subsequent scientific and technological advancements have altered most human life-styles. People are no longer required to live in an area capable of supporting them. They have learned to control and import some elements of the environment, and technology has made it possible to support human life in any geographical area. But is it worth its cost? It is noted that industrial and developing nations are confronted with a variety of ecological problems: polluted air, water and land, noise, the energy crisis and other pressing problems. As living conditions change due to technology, problems increase all of which are directly related to the natural environment. The ecological problem exists within the environmental context when humans interfere with the natural environment to fulfil their thirst for technological progress without considering the natural balance of such an environment. The human environment can now be made with no consideration to the ecological past, present or future.

Hough (1984) mentioned a number of fundamental effects of the mechanical climate control of buildings on the modern city:

(1) It has freed building from the constraints of weather that were originally imposed upon it. Stylistically, modern architectural form has become an event in its own right, responding to the constraints of mechanical engineering and design doctrine, rather than to the constraints of site and climate. Modern air conditioning has permitted the development of the mega-structure; great-interconnected interior complexes, whose heating, cooling, humidity and daylight are entirely dependent on mechanical systems.

(2) It has contributed to the radical changes in urban form that have taken place since fossil fuels became abundant. The city turns its back on an outdoor environment that has become increasingly unliveable; an environment polluted by dust, smog and exhaust fumes, and alternatively swept by winter winds and cooked by summer heat.

(3) The preoccupation with internal climate has the effect of denying a climatic role for exterior space. Air conditioning screens out the products of industrial processes - the soot, chemical pollutants and dust that threaten public health. Unhealthy outdoor climates generate greater reliance on safe, controlled interior ones, and so more and more development provides interior space for urban activities. The subterranean shopping mall is the modern alternative to the open-air market.

(4) Its effects on life-styles and perceptions of the environment have been profound. Urban life has become a series of air-conditioned experiences. The home, the office, the school, the bus that takes the children there, the movie theatre, have all been sealed off from the

outdoors. It creates a world of its own; separated from the increasing problems of health and comfort of the world outside. It is remarkable how much energy and effort is expended to provide climatic comfort indoors while at the same time maintaining such unrewarding environments outdoors. It has even been proposed that whole cities should be covered with geodesic domes (Frampton, 1985, p282); a suggestion that has been seriously discussed for some cities, and which takes the problem a step further to the ultimate technological solution (Hough, 1984).

3.7 Summary:

It is the characteristic of our species and its history that man is able to adapt himself to almost any particular environment. The most fundamental needs of primitive man were for shelter from the climate and protection from the dangers of his site such as the topography, wild animals and enemies. His location of site was essentially influenced by his closeness to resources such as food and water. To build his shelter, other influences came into effect such as materials, economics and technology. The basic needs of today's people in regard to the building of our environment have not changed from the needs of the primitive man - they have developed. People's perception of space and form, while largely affected by their desires and expectations, are also affected by people's appreciation and influences of the natural environment.

Therefore how buildings afford shelter in lands of constant, hot sun differs from the means developed in areas where rain, sleet, snow and ice have long seasons. Thus the climate, the permanent condition as distinguished from local, changeable, everyday weather, is a prominent influence. The different arrangement of buildings in disparate climates shows the different living conditions. Size, number and style of windows, their placement towards or

away from the sun, to the east, west or north, whether located high or low, whether primarily for light or security these choices provide insights to the living conditions experienced in a particular climate. Small windows are more common in both extremes of hot and cold climates for large openings offer scant protection from the sun or chill. More clues may be provided by roof shape and form, again influenced by climate. In such countries the climate has affected the ways that buildings are arranged in relation to each other.

In hot areas the huddling of buildings together to create a compact spatial structure reduces the surface area of the entire built form exposed to the sun, thus creating a microclimate of lower temperature within the town. The walls may be thick to minimise heat penetration during the day. These walls absorb heat slowly during the hot day and release it slowly during the cool night.

Societies and the individual attach significance to their dwellings that relate to their value systems ranging from personal identification to the cosmic symbolism of the house, its location to its orientation. Sometimes wholly implicit, they may be expressed visually through built form, in detail or in both sacred and secular decorations, which reflect beliefs, hierarchy, status and aspirations. This is what we will look at in the next chapter, the adaptation to social environment and its relation to sense of belonging and community life.

This chapter also examined specific aspects of the natural environment the indirect forces, particularly the horizontal and vertical dimensions and their influence in the formation of the identity of places. We noted that both horizontal and vertical dimensions are prevalent and provide meaning and even a sense of self to people's life.

CHAPTER FOUR: IDENTITY AND UNDERLYING FACTORS

4.1 Prologue
4.2 Society
4.3 Culture
4.3.1 Behaviour as a Determinant of Identity
4.3.1.1 Privacy
4.3.1.2 Personal Space
4.3.1.3 Territoriality
4.3.2 Activity as a Determinant of Identity
4.3.2.1 Activity and People
4.3.2.2 Activities and Spaces
4.3.3 Symbol and Identity
4.3.4 Language and Identity
4.4 Religion
4.4.1 Islam
4.4.1.1 Islam as a Complete Way of Life
4.4.1.2 Islamic Faith as the Basis of Society
4.4.1.3 The Built Environment as a Reflection of Islam
4.5 Identity and Economy
4.6 Summary

(4)

IDENTITY AND UNDERLYING FACTORS

4.1 Prologue

Chapter two raises the issue of importance of underlying factors in forming the built environment identity. This chapter will attempt to provide answers to a number of questions in order to have a clear understanding of these factors which influence the formation and identity of the built environment. These questions are:

(1) What do we mean by the term underlying factors?

(2) What are these underlying factors?

(3) How and to what extent do the underlying factors influence the formation and identity of the built environment?

Underlying factors of the environment are those that are non-tangible but can be associated with human life in any society. They include culture, religion, traditions, customs and conventions. In explaining the role of underlying factors in the formation of the built environment identity, Oliver and Hayward write "More than the buildings that they comprise, settlements and cities are the subject of human discourse and reflection. The public domains of cities, the streets and squares and public buildings, are the places of public exchange and cultural demonstration suitably laid out and embellished. The private domain, primarily the dwelling, is the refuge where private dealings are played out" (Oliver and Hayward, 1990, p53). However, religions, beliefs, people habits and traditional values all have important effects and influence in the built environment in every society.

4.2 Society

In order to understand how underlying factors influence the identity of the built environment, we need first to know the transmitter or the user who is influenced by these factors and then adapts the built environment around them. By the transmitter we mean the society where all the hidden dimensions developed.

A society is a system of interrelationships which connects individuals together (Giddens, 1997, p18). In other words, society means not merely the objective set of relationships between members but also the subjective set of norms, values and behaviours. Since a person is the basic unit of any society, the focus will be on the person, his or her environment, activities and behaviour in order to understand the why any society works and how this affects the built environment.

'Social identity' refers to the condition in which a mass of people share the same identification as a society, so that they act as one coherent group when there is a possibility of enhancement of their identity. Therefore, for social identity to exist, the people must have gone through the actual psychological process of making that identification (Bloom, 1990). People use different types of identifications to identify themselves and one of these is territory, i.e. villages, cities and countries. Territory exists not in itself as a given for it is human beliefs and actions that give territory meaning. Moreover, the people who inhabit a territory feel a powerful sense of belonging to it. "The concept of national or countries is to transfer the loyalty from kinship groups or local and regional levels to the larger national society" (Badawi, 1993, p36).

It is also important here to understand the social structure of the society, the basic unit of which is the family. Through the family most of ideas are learned. The family is a group of persons directly linked by blood connections, the adult members of which assume responsibility in nurturing the younger ones. Kinship ties are connections between individuals, established either through marriage or through the lines of descent that connect blood relatives.

Family relationships are always recognised within wider kinship groups. In virtually all societies we can identify what sociologists and anthropologists term the 'nuclear family': two adults living together in a household with their own children. In most traditional societies, the nuclear family was part of a larger kinship network. When close relatives other than a married couple and children live either in the same household or in a close and continuous relationship with one another, we speak of an extended family. An extended family may include grandparents, brothers and their wives, sisters and their husbands, aunts and nephews. Therefore the type of family, the family way of life and the ideology of the family become factors that influence the house form and identity. In a society in which most of the families are nuclear families, one finds small enclosed housing units whereas if most of the families were extended then most of the housing units will be large in size.

Furthermore, individuals actively seek to identify themselves in order to achieve psychological security (Maslow, 1987), and they actively seek to maintain and protect identity in order to maintain and enhance this psychological security which is important to personal stability and emotional well being (Stevens, 1983). Moreover, identifications can be shared, and the individuals who share the same identification will tend to act as a society in order to protect or enhance their shared identity.

4.3 Culture

When we use the word 'culture' in conversation, we often talk of it as equivalent to the higher things of the mind: art, architecture literature, music and painting. As sociologists use the term, it includes such activities, but also far more. Culture refers to the ways of life of the members of a society, or of groups within a society. It includes how they dress, their marriage customs and family life, their patterns of work, religious ceremonies and leisure pursuits (Giddens, 1997, p18). Culture can be seen as a system of symbols, meanings, and cognitive schemata transmitted through symbolic codes. Thus, the built environments of particular groups are settings for the kind of people which that culture sees as normative, and the particular life-style which is significant and typical, distinguishing one group from another (Rapoport, 1984, p9). Shore (1996) saw culture as the entire system of those conscious and (perhaps mainly) subconscious rules (ways to behave, things to say and so on) that the social environment prints onto mind of an individual (mostly at childhood) and are born inside the individual again as images.

Altman (1980) defined culture as beliefs and perceptions, values and norms, customs and behaviours of a group or society. He then added that culture includes what people believe to be true of the world, their lives and the environment, and thus their values, or what they hold to be good or bad, acceptable or unacceptable. Still another part of culture is a set of rules and beliefs about how to behave or do things. Altman argued that culture is used to indicate that cognition, feelings and behaviours are shared among a group of people in a consensual and intuitive way. For a culture to exist, people must agree, with or without verbalising their agreement, that there are common ways to view the world and to behave. Culture implies that these shared beliefs, value, and styles of behaviour are passed on to

others, especially children, and that the socialisation and education of new members of the culture helps preserve consensus from one generation to the next (Altman, 1980).

Therefore, culture is a fundamental force from which urban form emerges. Cities with their component buildings, streets, open spaces etc. are the physical expression of values, behaviour, customs, traditions and lifestyle, as symbols. So in order to understand the role of culture in forming the identity of built environments we need also to understand the role of its urban components.

4.3.1 Behaviour as Determinant of Identity

In this part we turn our attention to behavioural processes involved in people's relation to the environment. Three sections in this part (privacy, personal space and territoriality) emphasise overt behaviours in relation to their environments. The author examines the actions and behaviours that regulate the relations between people and with the social and physical worlds, including how people use the physical environment as a behavioural extension of themselves. The concepts of privacy, personal space and territoriality are closely linked. In this part we will see how they blend with certain features of settlements and home design.

4.3.1.1 Privacy

Privacy is a driving concept in social life, and a significant factor that gives the built environment its identity. Privacy means that a person or group will tend to attempt to regulate their interaction and exchange with others or with aspects of the environment. It is a changing process under which individuals or a group seek to regulate their openness or closeness to others (Altman, 1975). Nevertheless privacy is something personal; it remains

a significant social and cultural aspect existing among every culture and society. The required levels and forms of privacy vary from one society to another according to the type of dominant culture, religion, tradition and so on. In every culture there are explicit social rules exist to maintain and protect those levels and forms of privacy.

Westin (1967) classified four kinds of privacy, each one of them serving a different purpose: *solitude* is complete visual privacy; *intimacy* is the state of being with another person but free from the outside world, for instance among ones family when it is alone; *anonymity* is the state of being unknown even in crowd, for example an individual in a public place who is able to observe without feeling observed; and *reserve* is the state in which a person employs psychological barriers to control unwanted intrusion. Therefore, privacy is a guiding principle in terms of the relationship between the individual or group and society.

In the built environment we use objects, for example doors and window screens, as well as the physical presence of space itself to reflect our openness and closeness to others. The desire for privacy deeply influences built form in almost every society. Many solutions evolve in various cultures to serve people's need for privacy as a basic requirement of form, and these solutions became obligatory components of the identity of that built environment.

In the built environment, privacy can be achieved through spatial organisation. For example, in traditional Muslim cities where privacy was a requirement of religion, society and individuals, residential quarters are composed of family houses, so that privacy and security were highly respected. The whole residential urban fabric was organised to provide different levels of privacy. Consequently spaces came to be separated into a hierarchy that

ranged from totally public to completely private and accommodated intermediate levels (see figure 4.1). Therefore the need for privacy influenced city structure as a whole into affording a subtle hierarchy of streets, evolving a pattern of distribution of public spaces, squares, public facilities and services as well as showing sensitivity in the building heights (see chapter seven).

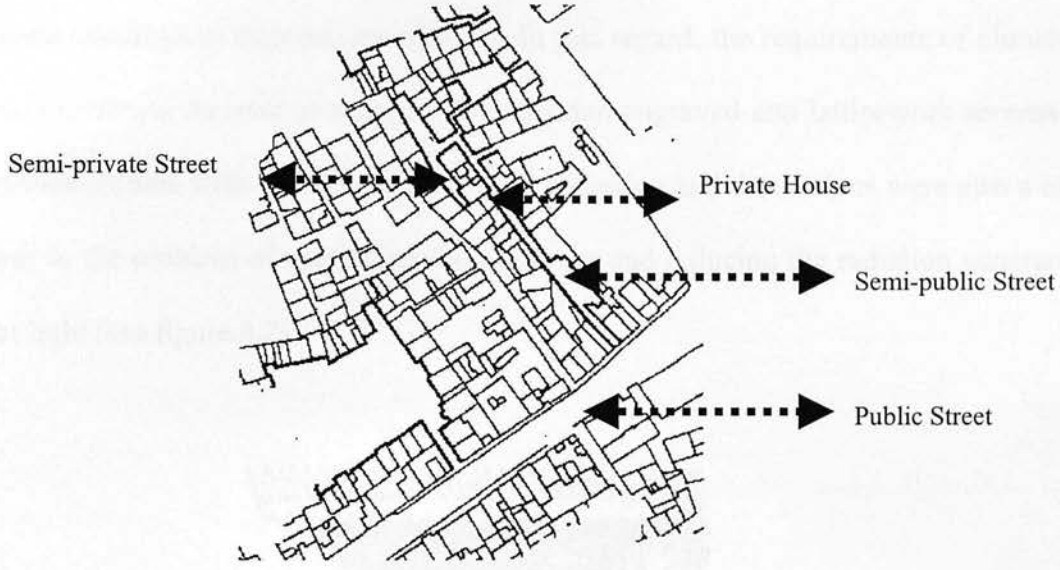

Figure 4.1: The influence of privacy in the built environment example of Al-Madenah Al-Munawarah. Source: Al-Hathloul, S, "Tradition, Continuity and Change in the Physical Environment: The Arab and Muslim City" (unpublished PhD Thesis M.I.T, 1981, p138), edited by the author.

In Muslim traditional Cities such as Al-Madenah Al-Munawarah, Damascus and Baghdad the scale of an individual building was of foremost importance in ensuring privacy for women. Women's activities were centred on the family but also with interaction among other women and family members. The requirement was for women to have minimum direct social contact with men from outside the family. The immediate result was the separation of the house into two distinct parts. The first was semi-public in nature and was intended to provide the household/ patriarch with facilities for social gathering, entertainment and accommodation for other male guests. The second part, used by women and members of the family, was more private with limited access to the outside, but with

facilities almost identical to those provided for men. The women's quarters were known as *haramlik* and those for men known as *salamlik*.

The need to separate women from men was reflected in the designs of the typical home. It was not intended to isolate them from the world of men since they were allowed access to discussions, poetry reading sessions, recreation and other entertainment events from behind screened openings in their private quarters. In this regard, the requirements of climate and the socio-cultural dictates overlapped. The wooden engraved and latticework screens used to provide women with visual access to social gathering and discussions were also a logical answer to the problem of ventilating their quarters and reducing the radiation generated by direct light (see figure 4.2).

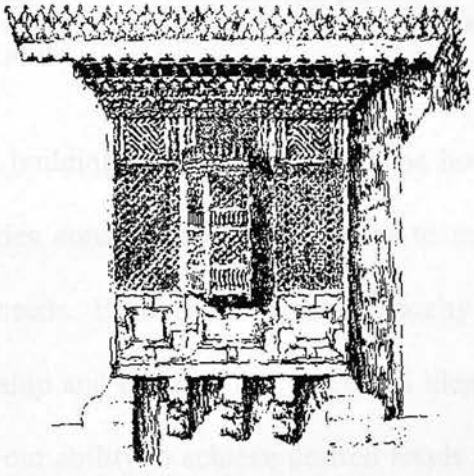

Figure 4.2: A wooden engraved and latticework screen (*Rawshan*).
Source: Greenlaw. J, The Coral Buildings of Suakin, Oriel Press Stocksfield, London and Boston, 1976, p107.

Similarly, the need to allow women maximum freedom of movement within their own quarters while eliminating the possibility of their being viewed by strangers meant that family quarters needed to be oriented towards internal courts which therefore minimised the need for external windows (see figure 4.3). Again it is not possible to ignore the

significance of internal courts in maximising fresh air circulation and in reducing the intensity of light during the summer while contributing to the warmth of the house during the winter. In other words it is difficult to state categorically that these features were introduced exclusively as a result of social or climatic considerations.

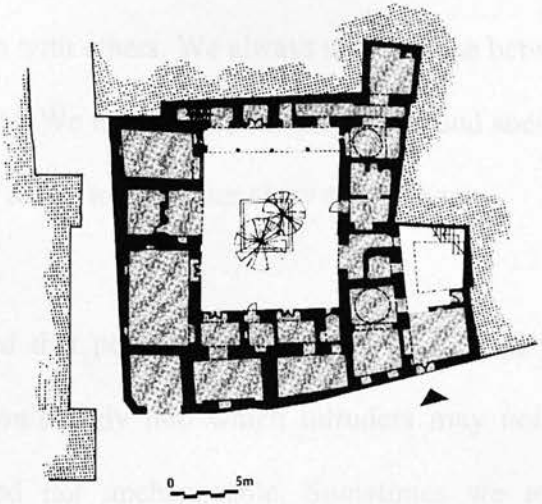

Figure 4.3: House with courtyard to provide maximum privacy for women.
Source: Warren. J and Fethi. I, Traditional Houses in Baghdad, The Coach Publishing Limited Horsham, England, 1982, p106.

The layout of districts, buildings and rooms depends on how people relate to each other in space, and thus it varies considerably from culture to culture. There is a hierarchy of strengths of privacy needs. Each level in the hierarchy involves different degrees of personalisation, ownership and control. The perceived identity of the built environment is partially dependent on our ability to achieve desired levels of privacy. While the desire for privacy through personal space and territorial controls may be universal, its manifestations vary considerably. Some cultures have more complex demands and gradients for privacy than do others. This is reflected in both the internal and external organisation of houses. The internal organisation of houses in which people feel comfortable very much reflects their culturally based attitudes toward privacy. While some people accept almost any relationship between the living, cooking, eating, and sleeping areas of a house, others have

privacy needs that may affect not only the location of rooms but also the location of doors, size of windows and the use of each space.

4.3.1.2 Personal Space

Personal space is one of the several environmental mechanisms that people use to regulate their social interaction with others. We always use distance between others and ourselves in our social relationships. We make ourselves physically and socially more accessible or less accessible by moving closer to or farther away from others.

Sommer (1969) stated that personal space refers to an area with an invisible boundary surrounding the person's body into which intruders may not come. However, personal space is neither fixed nor unchangeable. Sometimes we move closer to others and sometimes we move away, as we attempt to maintain an appropriate level of contact with them. Therefore, personal space is the space within an invisible boundary around people, which is with them everywhere they go. It is a flexible, subjective, not a rational and objective phenomenon dependent more on a person's attitudes at any given time than on any set measurement. It could be considered as a small portable territory or invisible protective bubble within which encroachments are generally unwelcome and often distressing. For example in a public place, the size of the sphere varies with the degree of crowding, gender, age and general surroundings. Personal space is not necessarily spherical in shape, for example people can tolerate the close presence of a stranger at their sides more readily than directly in front of them.

Hall (1966), an anthropologist, stated that in North America people use four spatial zones in their dealings with others in everyday situations and this is the case for all people over the

world. These zones are: the *intimate* zone, the *personal* zone, the *social* zone, and the *public* zone. The use of these zones varies with the settings within which people find themselves. He observed that spatial zones are differentially appropriate for various social relationships (see figure 4.4).

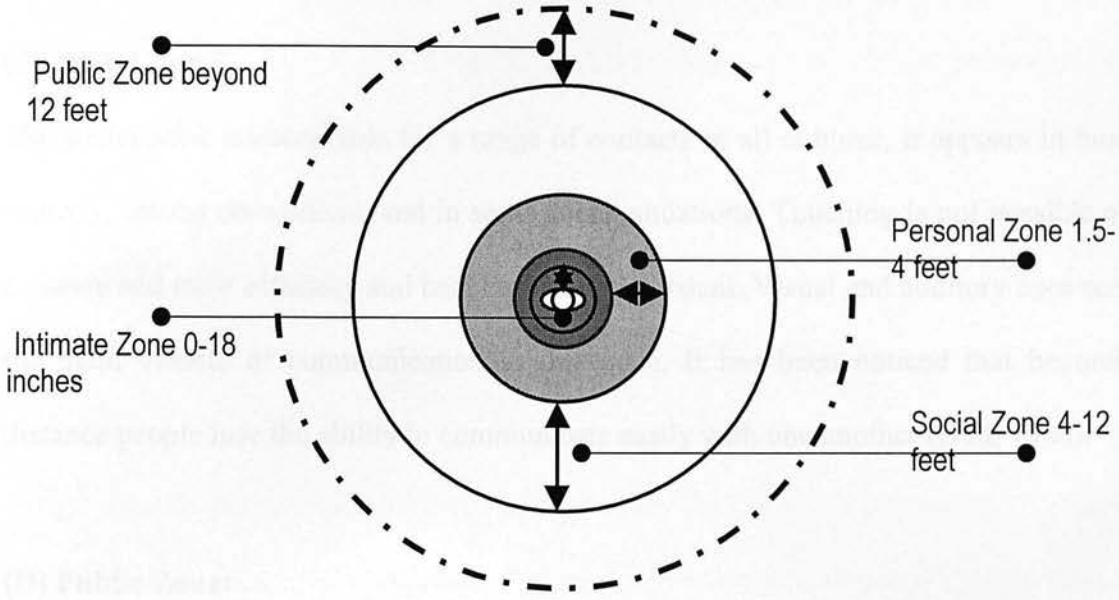

Figure 4.4: Approximate / Average different zones people use to deal with each other.
Source: The author based on Hall (1966) model.

(A) Intimate Zone:

People in a close relationship, such as close friends usually adopt the intimate. Strangers or even just colleagues usually do not use this zone in all cultures. It is assumed that movement closer into the intimate zone will produce tension anxiety, and stress, especially in public or between strangers (Hall, 1966).

(B) Personal Zone:

The personal zone is a zone that people commonly use in public and it seems to be a 'normal' contact distance in all cultures. Furthermore, the personal zone enables people to

remain in reasonable proximity or to move towards more intimate or less intimate communication. Communication possibilities continue to be rich in the personal zone, although less so than in the intimate zone. This zone allows a range of contact between people, from relatively intimate to more formal (Hall, 1966).

(C) Social Zone:

The social zone is acceptable for a range of contacts in all cultures, it appears in business settings, among co-workers, and in some social situations. Touching is not possible at this distance and most olfactory and heat cues are also absent. Visual and auditory cues serve as the main vehicle of communication in this zone. It has been noticed that beyond this distance people lose the ability to communicate easily with one another (Hall, 1966).

(D) Public Zone:

The public zone is a formal distance used on public occasions and is usually reserved for high-status figures. Public speakers are typically located in the public zone in relation to the nearest member of the audience. Obviously, touch, thermal and olfactory cues do not operate in this zone. In addition, speech becomes more formal at this distance, enunciation and phrases are more formalised and emotional expression is exaggerated in order to be understood (Hall, 1966).

Hall also produced a reasonable view of the relationship between personal space and the environment. He hypothesised that different cultures use space as a vehicle for communication in rather distinctive ways. He described the people of the Middle East as highly sensory; they interact very closely, nose to nose, breathing on one another's face, and touching. Their communications are very different compared to Northern European

communication patterns. They represent stepped-up sensory input to a level which many Europeans find unbearably intense in their own cultural setting. This signifies therefore a variable use of space by people of different cultures (Hall, 1966).

In examining the relation between the concept of personal space and identity of the built environment, we can see this relationship in two levels: external space (streets and public spaces) and internal space (house).

Firstly, in the public spaces of traditional Muslim cities, one sees this relationship very clearly in outdoor spaces. The personal zone enables people to remain in reasonable proximity or to move towards more intimate or less intimate communication and this is reflected in the nature of the streets. Streets are very narrow and winding, which sometimes force people to pass very close to each other. On the other hand people like to have large open space so a large number of people could gather and interact because they do not like to be separated (figure 4.5).

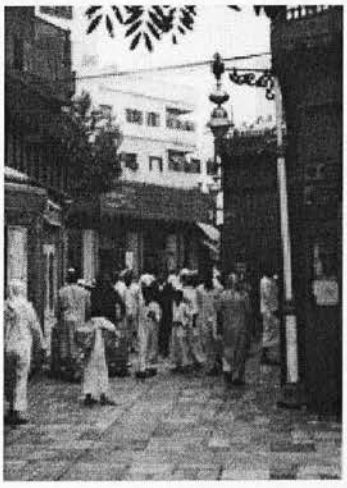

Figure 4.5: The personal zone of people in the traditional area of Jeddah reflected in street width. Source: The author

Secondly, at the level of the house, people like to have a lot of space to hold the family together inside a single shell, because they are deeply involved with each other within the extended family. The interior design and the furniture arrangement inside the house reflects how people live close to each other as large families and up to what level they welcome their visitors, even strangers (see figure 4.6). This contrasts with more recent patterns of settlement, in which people live at greater distance from their neighbours.

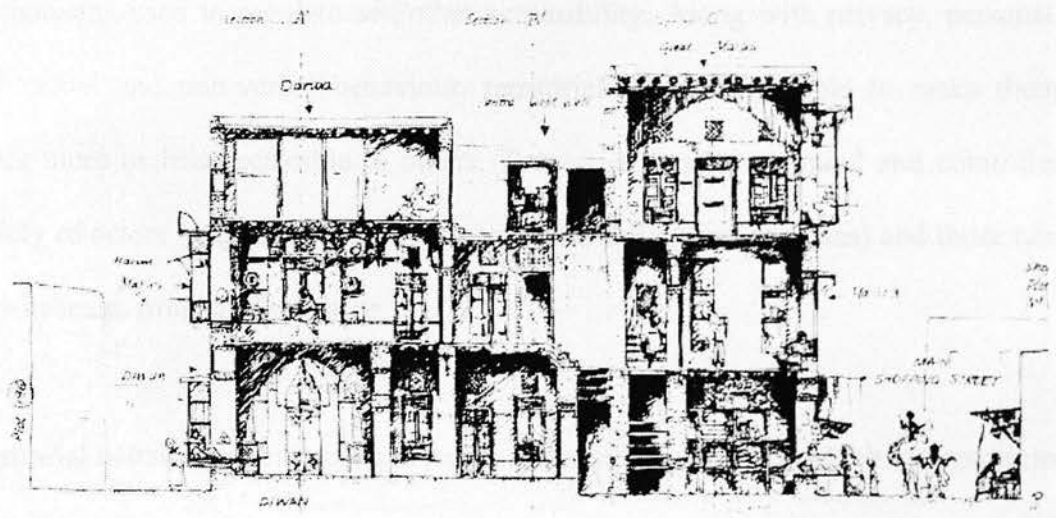

Figure 4.6: Section through a traditional large family house in Suakin.
Source: Greenlaw. J, The Coral Buildings of Suakin, Oriel Press Stocksfield, London and Boston, 1976, p34.

In modern communities, houses and building blocks have become located far from each other, which means that the people themselves became physically removed from each other. Thus, at least in the public settings, people have influenced the physical environment.

4.3.1.3 Territoriality

Territorial behaviour is a notion that has most often been ascribed to animals. The application of it to human beings is relatively recent. Humans and animals exhibit territorial behaviour in different ways. In animals it is mainly biologically based. In humans, territorial behaviour is biologically based and culturally biased (Altman, 1980). Human

territories vary considerably in size and locale, marked by a wide range of physical barriers and symbolic markers (Lang, 1987). Although there are many definitions for the term territory, Altman defined it as one mechanism for attaining privacy. He wrote that territorial behaviour is a self-generated boundary regulation mechanism that involves personalisation of and making communication of a place or object that it is understood to be owned by a person or group (Altman 1980). The basic idea is that territorial behaviour is one of several mechanisms used to regulate self/other accessibility. Along with privacy, personal space and verbal and non-verbal behaviour, territoriality enables people to make themselves either more or less accessible to others. Territories can be occupied and controlled by a variety of actors (individual, small groups, communities and societies) and those territories vary in scale, from small to large.

Territorial behaviour facilitates a diversity of functions, many of which are connected with basic life. Life would be disorganised without territories. According to Edney (1976) there are two general functions of human territoriality: management of personal identity and regulation of the social system.

Territorial behaviour manages personal identity by helping to define the boundary between the self and others, whether the self is an individual or a group. In another words identity management facilitates the regulation of self/other boundaries between a person or group and the social environment. Communities and nations use symbols and slogans that are displayed to reflect their images and to indicate their territorial boundaries. Personalisation tends to illustrate simultaneously one's distinctiveness from others and one's common ties with a community. Therefore, personalisation can serve to organise life and facilitate social relationships.

The other function of human territoriality, according to Edney, is the regulation of social processes, involving control over various resources. Primary, secondary and public territories enable people to survive physically and psychologically and to handle life functions in an orderly and systematic way. It would be hard to function well without any territories at all, whether these be a portable tent or a permanent home, a temporary encampment of a nomadic group, or a nation that has stable borders. This is not to say that it is the territories themselves that are important; rather, what is crucial is access to the resources they contain. The author here argues that territory is not only the seizure of resources but a declaration of existential worth, the creation of a 'space' which, being guided by ones personal laws of freedom, behaviour and privacy more than by laws imposed from beyond the self, becomes a 'place', a unit of identity.

In the built environment, territory is the predominant mediator to attaining the privacy needed. According to Altman (1980), there are three types of territories: *primary*, *secondary* and *public*. Human territories vary in their importance in the lives of the occupants. Some territories such as homes are primary territories and are extremely important to the well being and lives of their occupants. Public territories, such as seats on a bus or places in a queue, are generally not important; they do not occupy a central role in the lives of their users unless frequent requirement of them creates a habituated need. Personalising a place permits a person to be distinguished from others and contributes to a sense of uniqueness and identity. The regulation of relations within and between groups is an important goal served by territorial behaviour, and it contributes to the smooth functioning of social systems (Altman, 1980).

(A) Primary Territories:

Primary territories are simple to define: a family home, a person's bedroom, a family farm, a company's offices a community's property, a nation's land. All these places are psychologically significant to their inhabitants and are something with which they identify strongly and which they occupy on a relatively long-term basis. Furthermore, primary territories are usually under the complete and unambiguous control of their members. In all societies, one rarely enters someone's home without explicit permission, and the home is a place over which occupants generally have complete control. "Primary territories [are] owned and used exclusively by individuals or groups, are clearly identified as theirs by others, are controlled on a relatively permanent basis and are central to the day-to-day lives of the occupants" (Altman, 1975, p112).

Intrusions into primary territories by unexpected or uninvited people are considered as a serious infringement of social ethics and can lead to strong defensive actions. For example, it is permissible and legal in all societies to protect one's home - sometimes with extreme measures - against intruders and it is permissible under world law to defend one's nation against undesired entry or invasion. Perhaps this allowance reflects an acknowledgement that such territories are important to a person's or group's wellbeing and viability. Thus, it is believed to be important for people to have homes (or places within homes, such as bedrooms) to where they can retreat, where they can assume a certain image and status within a family and within society and over which they have relatively complete control. So, in a variety of ways, primary territories are crucial to the lives of people and groups in all societies and cultures.

If we take a traditional Arab house as an example, the total area of a family home, from the perspective of an outsider, is a primary territory. It is a place the family occupies and controls on an enduring basis and the family has absolute freedom to decide how and when visitors may use its home. When a person comes to the house of an Arabic family, there are certain rules that must be known and followed. If he is just a guest and not a relative of the occupant, he is allowed only in the guestroom. The case is different if he is one of the occupant's relatives because he would be allowed to go beyond the guest room inside the house to an area called the common room. If he is a closer relative he is also allowed to go beyond that to some of the private rooms and so on. This is related to the concept of privacy and its relation to the social life and social adaptation to that way of life.

On the other hand, from the viewpoint of family members themselves, the home can be described as including primary, secondary, and public territories in connection to the family users. Parental bedrooms and older children's bedrooms usually function as primary territories, the occupants having substantial control over access and use. Other areas of the home might function as secondary territories, with access restricted to subgroups of the family, such as a group of rooms and bathroom shared by a subset of children. At the same time still other places in the home may serve as public territories, such as the kitchen or family room, where everyone in the family has control on a temporary basis.

(B) Secondary Territories:

Secondary territories are less restrictive, less psychologically essential, and less under the authority of their occupants than primary territories. Secondary territories are exemplified by the neighbourhood mosque, open spaces and the street. They have a combination of public availability and some control over their use by occupants. They are a bridge between

primary territories which are owned by the occupants and where occupants maintain strict autonomy, and public territories which can be used on a temporary basis by almost anyone who follows basic social rules.

(C) Public Territories:

Public territories are temporary and they are usually not central to the lives of their occupants. Parks, public beaches, seats on a bus or train, restaurant tables and seats in a theatre all are examples of public territories. Furthermore, almost any member of a society or subgroup is permitted access to public territories on a temporary, short-term basis as long as he or she observes certain minimal social rules. For examples, one must wear clothing on most beaches, one must not litter public parks or remove natural material from preserved areas. Public territories appear in all cultures. No matter how small a community, one usually finds areas that most members of the culture can use. For example, a central marketplace or plaza, a street, a shopping area and a public thoroughfare exist in almost any community in the world.

In most traditional Muslims cities buildings are attached to each other in a compact way. Narrow streets and small public spaces surrounded by buildings and mosques are fused together as one unit. All these factors reflect on the inhabitant's concept of territory, creating an acute feeling of belonging to the place. Every individual considers himself or herself responsible for the community, and because of these feelings as a part of the society, the alley which is in front of his house is usually considered as an extension to the house spaces, a place for sitting with friends, for children to play in and many other social activities. Each open space between houses is a place for ceremonies and celebrations, but the main plaza in which the public activities take place is usually located far from the

residential area. The desire for privacy through personal space and territorial control may be universal, but its manifestations vary considerably from culture to culture.

4.3.2 Activity as Determinant of Identity

Activity is an important aspect in determining the identity of people and the built environment. It affects the built environment as the place of action by providing various choices and possibilities for meeting, seeing, hearing and talking to others in streets, squares and many different areas. Activity covers all actions through which participants interact with the outdoor environment (physical and social).

Altman divides activities into two main classes: mental and behavioural activities. Mental activities include things that occur in minds of people: what they see, hear and smell; and their interpretation about the physical environment. On the other hand, behavioural activities indicate what people do and how they act in relation to the environment.

Encouraging people to meet could not be achieved by improving the built environment only, but has also to be derived from the cultural forces. However, man's attitude towards life, culture and social structures influences his perception of it. For instance, the significance of creating and using an outdoor environment for the Greeks came as a result of their attitudes to life and social and cultural structures. Of course the unique qualities of climate, sea and earth play a very important role in shaping Greek behavioural patterns. More than nine months of the year can be associated with outdoor life. Even domestic activities such as sewing and cooking are often performed in an open courtyard rather than in an enclosed room.

4.3.2.1 Activity and People

The activities of a group of people or society are a reflection of their traditions, customs, rituals and culture. People's activities vary according to their degree of subjection to culture, and physiological constraints (Abou El-Ela, 1995). People's activities involve a repetition of their own history, emphasising their ethics, morality, education and civilisation. Generally, human activities find expression in forms and patterns. Open spaces, for instance, are purported to be the gathering places of the people, humanising them by mutual contact, symbolising the social, economic, cultural, political and religious life. "Moreover, activities are not only affected by people's biological characteristics but also by their personal attitudes. The extent to which an individual participates in some activity is not a function of an inherent or 'objective' capacity of that activity to satisfy his motives, needs and preferences" (Abou El-Ela, 1995, p130).

In his study of human senses and activity patterns, Jan Gehl examines how physical environments affect human behaviour and how human behaviour changes in response to the physical environment. Accordingly, he divides peoples' activities into three types: *necessary* activities, *optional* activities and *social* activities. The response towards the quality of the environment varies between them.

(A) Necessary activities

These include all activities in which those involved are to a greater or lesser degree required to participate, such as going to school or to work, shopping... etc. Because the activities in this type are necessary, and will take place any way independent of the exterior environment, people can not chose not to participate in them.

(B) Optional activities

These include those pursuits that are generally participated in, if there is a wish to do and if time and place make it possible, for example recreational activities. These activities are controlled by exterior environmental conditions.

(C) Social activities

These include all activities which depend on the presence of others in public space. They include both active and passive activities. The former includes communal activities of various kinds, talking walking and playing. The latter involves simply seeing and hearing other people. Social activities occur spontaneously as a direct consequence of people moving about and being in the same space.

Gehl wrote that the life between buildings is not merely composed of pedestrian, traffic, recreational or social activities. Life between buildings comprises the entire spectrum of activities, which combine to make communal spaces in cities and residential areas meaningful and attractive (Gehl, 1987).

4.3.2.2. Activity and Space:

Space, whether it is exterior or interior, is the stage upon which activities take place. It is the container of all activities. Therefore, the effect of space and activities is a very strong, if not, compulsory and prerequisite relationship. On the other hand, these activities are affected to a great degree by a number of factors, especially climate, topography, time and place. Since early times streets, squares and parks have been the places where common activities take place. These spaces are the essence of the city morphology; hence, towns have always been closely integrated with their environment. Their final emergence and

look has also been affected by several factors such as climate, topography, political and social tendencies as well as types of material and technical requirements, and the density of the town layout comes according to these factors.

In terms of social activities, buying and selling represent perhaps the most ancient activities which occurred in public spaces. In ancient Middle Eastern cities, the Oriental market or (bazaar) is a good cultural and ecological example of such a place where the environment, climate and the socio-economic aspects are met and interwoven to create a distinctive urban space. Its origins, the bazaar appeared as a solution to the climatic conditions in the area. It is a maze of narrow, covered shopping lanes, the commercial hub of a settlement. It contains not only stores but also a number of workshops. In a system such as that of the professional guilds, related activities were grouped together and the location of these various activities relative to the mosque followed a certain pre-determined pattern (see figure 4.7). The bazaar as a market is more than just a commercial centre; indeed, wherever goods are exchanged, news and ideas are also discussed. A bazaar is thus a place of gathering and social interaction, a place where people can sit, chat and entertain (Abdala, 1998).

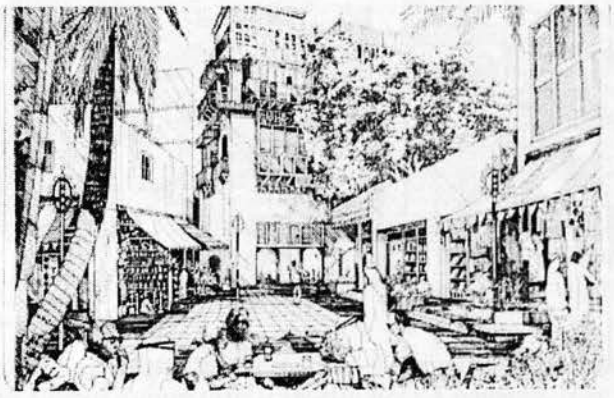

Figure 4.7: Different activities that take place in the traditional market of the city of Jeddah.
Source: Jeddah Municipality, Up-Grading of the Urban Environment of Cities (Centre of Planning and Architectural Studies-CPAS, Cairo, Egypt, 1986, p8)

Today's shopping centres have become a universal fact of contemporary urban life and have a major presence upon the social and urban environment. They provide a complete commercial experience within covered and air conditioned spaces, an experience which includes parking, shopping and entertainment. Shopping centres produce contemporary values in urban life that have many implications. The new mega-commercial entertainment centres, complete with restaurants, cinemas, health centres, surgeries and ice-rinks, understand only a need for commerce and the gathering of like-minded people. People use them, not only for shopping but also for other daily needs (see figure 4.8). Moreover, many people use them as a way of fun and entertainment. Life becomes a series of isolated events, nodes and activity between home, shopping, recreation and work. The biggest problem is an environmental one: the malls have become a series of unconnected events, island of activity and life, separated by roads, parking lots and sprawl. Lacking are the pedestrian connection and the social contact that these connections bring. The hostile parking environment surrounding the shopping complex serves to accentuate its isolation from the larger environment (Amin, 1994).

Figure 4.8: The new shopping centres have produced different activities and different way of life. Source: Mayer. A, The Urgent Future (McGraw-Hill Book Company, New York, 1967,p79)

4.3.3 Symbols and Identity

Symbols are deep expressions of human nature and behaviour. They have appeared at all times and in all cultures. From their first emergence in Palaeolithic cave drawings they have accompanied the growth of civilisations. Symbols are products of more than what people consider to be the high culture of literature, music, poetry and so on. In their true context, they still speak effectively to us, simultaneously addressing our feeling, intellect and spirit. Human language depends mainly on symbols in the form of spoken or written words, images or gestures. These symbols are manifestations of reality consciously made and readily recognisable imitations of objects, concepts and actions in this world. A profound view of symbolism that is equally important, though less explicit, is the part that relates to our emotional and spiritual domains, where a symbol can express deep understanding that eludes direct expression.

Ancient cultures were intuitively aware of the power of symbols and therefore used them widely in their religions, myths, art and architecture and in many other purposes. Colours can also have various symbolic meanings: for example, the colour yellow, which is an imperial colour in China, connotes falsity and cowardice in northern Europe while in Buddhist customs and traditions, yellow signifies humility and renunciation. At the cultural level, these distinctions receive further stimuli from the natural environment. For instance in some dry parts of the Middle East, sand has come to stand for purity, since it was used for cleaning instead of water, while in the rainy countries of Europe it represents instability and impermanence (Fontan, 1993). Symbols always become modified with the passage of time. As a culture develops and grows there is a tendency to consider the beliefs of previous generations to be primitive.

4.3.4 Language and Identity

Language is the most important tool in regard to human communication. It contains many important concepts and values that a particular culture has. These concepts and values can be seen as adaptive features which allow particular cultural groups to achieves their goals and formulate a sense of a united identity and institutional structure. Language, when it is seen this way, can be treated as equivalent to a mirror through which one sees; the values, ideas and priorities of a given society. Language is a complex reflective system embedded within the traditions of a culture. It is a relationship that exists between the human and the environment. Culture's very existence, sustainability and survival depends on language, as it offers a direct access to an understanding of the world that the culture identities with. Such an understanding shows that the categories and semantic extension of a particular language has an acute adaptive or evolutionary edge (Barati, Ujam and Ryan, 1997).

Whorf (1956) suggested that language is not only applied to human behaviour, but is also connected to the whole culture. Language is the carrier of culture. Without language, thousands of years of interaction with the environment would have yielded very little in terms of culture, or possibly even survival beyond particular levels. Learning a language and learning a culture, if not one and the same thing, are, to a degree, symbiotically interconnected. No matter which definition of culture we choose, there is no doubt about this lineage.

Each culture sustains its own variety of epistemological and ontological relationships and structures. Linguistic interactions between the generations of a *de facto* institutive linguistic community are the most effective means of transmitting indigenous environmental, architectural and cultural knowledge through time (Barati, Ujam and Ryan, 1997).

Because of the differences in cultures, a word in any language has attached to it different meanings and philosophical dimension. Hall in his book The Silent Language (1973) indicates that Eskimos have different words for snow because this is the normal environment where they live and it is an essential element in their environment and life. Language, in his opinion, enables one to understand and interpret all events in the environment and to cope with them. It also stores the deep meanings and values of environmental factors and transfers them from one generation to the next.

Connecting all that to the built environment, Barati, Ujam and Ryan (1997) argue that language and the environment are associated. The built environment is planned 'thought' before it is built and 'thought' is fundamentally related to language. On the other hand, human behaviour is determined by a culture that is carried by language. If we see the built environment as a physical container for culturally determined behaviour, it is possible to consider a mutual relationship conjoining language and the built environment.

Language must be able to connect people with their own surroundings. Reconnecting the built environment to language is not a one-way path. Language itself needs this connection in order to develop important environmental, and therefore cognitive, concepts. In other words, people can communicate with the environment and contribute to it through their understandable symbols. A fragmentation between language and the built environment, in practical terms, leads directly to a disconnection between humans and their environment. Is it possible to expect people or the environment to develop when there is no proper communication between people and their environment, but rather there is confusion and conflict between them?

Consequently, if we want to adapt the built environment in urban areas with local culture as a precondition for the creation of a sustainable life for communities, we must involve the deep structural meaning of environmental elements and functions. It is crucial that we consider language as perhaps the most significant functioning tool in this design exchange. (Barati, Ujam and Ryan, 1997).

The names people give to places imbue them with a symbolic significance that anonymous places lack. In Toronto, street signs in the Greek quarter or in Chinatown give a stamp to these neighbourhoods that defines and reinforces their identity within the city. Naming is, in fact, endemic to the perceptions and shaping of a locality for names alone can create a mental image that has special significance for local people, and names can be the means by which an outsider begins to perceive a place's unique qualities.

Names may also create strong and romantic images of places that belie reality. Piccadilly Circus is one of the world's more celebrated places and one that people go to see when they visit London. Until recently, though, the famous statue of Eros was almost totally inaccessible because the deafening traffic that circled the place made it a death trap for pedestrians (Hough, 1990).

However, the names of places and, for that matter most things we value, are the essential and powerful features of their identity and how they are understood. The advertising, signs and the neon titles people see hanging on walls, in streets and everywhere in our cities, shows the importance of language in people's lives. It reveals the locally dominant language and reinforces people's perceptions to the environment (Venturi, 1977)

4.4 Religion

Religion is another integral part of human culture. It is one of the underlying factors that determines the identity of people and their built environments. A society's religious beliefs are often salient in city and community designs, historically and cross-culturally. Many modern cities do not reflect such values, but traditional communities and those from earlier periods of history frequently incorporated religious values (Altman, 1980). The remainder of this chapter studies the influence of religions on people and their built environment. The discussion is based on different examples from all over the world as well as taking Islam as a detailed example in order to understand its role in the formation of the identity of the Muslim's built environment.

From early times, religion was one of the important motivations behind the building of settlements. "Religion is the determinant of form in landscapes, settlement patterns, cities, houses, demography, cultivation, and circulation" (Rapoport, 1969, p40). "Every society understands, observes, and forms its settlement according to its own cultural background and belief" (Abdulwahab, 1994, p16).

Abdulwahab argues that when people accept any ideology or belief, this can be reflected clearly in their products, artefacts, built environment and all other aspects of their lives. This appeared in all ancient civilisations and still continues to appear in all nations in different forms and shapes. People's beliefs are usually expressed through certain rituals and activities practised either indoors or outdoors but usually within their built environment. These activities, whether practised in public or in private, will have their reflection on the built environment either directly or indirectly (ibid.).

Religion played an important role over a long period of time in shaping the way of life and component structures of human settlement, its layout, architectural forms and the characteristics. Throughout the history of civilisation, Judaism, Hinduism, Buddhism, Christianity, Islam and other religions inspired societies toward spiritual guidance and invention of new ideas and technologies which acted as the guiding force for the development of a particular culture in any geographical location (Alam, 1985). Religious values were organised around a series of polarities: sky/earth, sun/moon, east/west. These religious values were carried directly into the structure of settlements.

Medieval European cities illustrate the role of religious values in urban form. Without exception they had a church or cathedral at a central location. "Rome is generally known as the 'Eternal City'. Obviously this name indicates something more than a very long history. To be 'eternal' implies that the city has always conserved its identity" (Norberg-Schulz, 1980, p138). In Rome one finds churches and religious monuments throughout the city that serve as neighbourhood focal points (see figure 4.9). Moreover, Rome contains a separate holy city, the Vatican. In Rome there are numerous open spaces founded for certain religious or ceremonial purposes, such as the Piazza of Saint Peter. It is a huge open space within the city dedicated to religious ceremonies manly associated with Saint Peter's Cathedral and the Vatican from where the Pope, leader of the Catholic Church, conducts mass (Norberg-Schulz, 1980). Wheatley (1971) posits a theory that urban forms in ancient history did not evolve mainly from political or economic factors, but derived from fundamental theological and cosmological values.

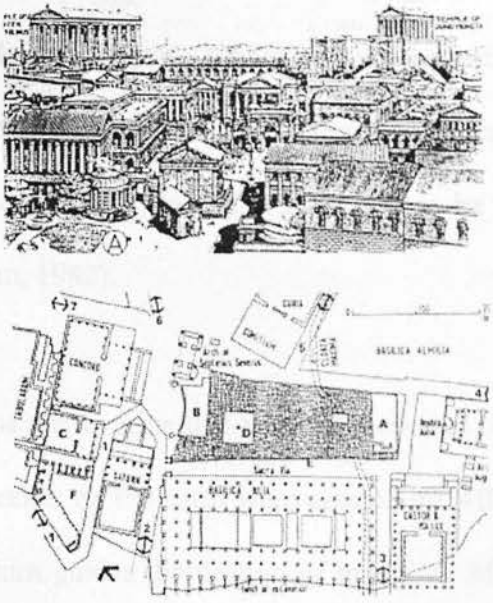

Figure 4.9: The Roman forum, with the buildings and spaces associated with and connected to it. Source: Morris. A, History of Urban Form, pp48-49.

At a smaller scale religion "affects the form, plan, spatial arrangements, and orientation of the house. It may be the influence, which leads to the existence of round and rectangular houses. The reason for a culture never having had roundhouses may well be due to the needs of cosmic orientation a roundhouse cannot easily be oriented. In Africa the distribution of round and rectangular houses is related to the distribution of religion, and many examples can be found, like the Zulu, where orientation is unimportant, round houses are used, and there may not be any straight lines" (Rapoport, 1969, pp40-42).

4.4.1 Islam

The world of Islam, which straddles a broad and strategic belt stretching from Indonesia in the East to Senegal in the West, is today the focus of unprecedented attention. Though living in different climates and under different customs and political systems, speaking different languages, Muslims all over the world retain an abiding sense of Islamic identity, an identity that is the characteristic of the community of Muslim peoples.

It was fourteen centuries ago that the Prophet Mohammed (peace be upon him) left Makkah Al-Mukarramah for Al-Madenah Al-Munawarah where he established the first Islamic State based on the concepts revealed in the Holy Quran. The success of the system dazzled the world. It gave birth to a civilisation which continues to be a source of inspiration to mankind to this day (Azzam, 1982).

Islamic philosophy contains the doctrine that nothing is created without value and purpose. The universe and all that exists on the earth were created by Allah and controlled by Him under a system which in turn guides the destiny of mankind. Mankind is enjoined by the responsibility of serving Him by good works and by following the path prescribed through the Holy Quran as transmitted through the Holy Prophet (Alam, 1985).

Islam is a complete way of being. It has a distinct outlook on life. It aims at producing a unique personality in the individual and distinct culture for the community based on Islamic ideals and values (Ahmad, 1974). In other words, Islam is a law for both religious and secular life. So Islam is involved in all aspects of Muslim's life

4.4.1.1 Islam as a Complete Way of Life

Islam affirms God's sovereignty over the entire span/tapestry of man's life. It is opposed to asceticism, monasticism and creeds of life-denial and annihilation. It stands for life-affirmation and life-fulfilment. It rejects any division of life into watertight compartments of the sacred and the secular, of the sacred and the profane. It invites man to *enter wholly the fold of Islam* and regards the division of life into religious and secular as deviations from the Right Path. It gives an integrated view of life and reality. The teachings of Islam cover all fields of human activity, spiritual and material, individual and social, educational

and cultural, economic and political, national and international. They cater for the aspirations of the soul as well as for the demands of the law and social institutions. Islam's uniqueness lies in this spiritualising of the whole matrix of life. Every activity, whether related to things like prayer and fasting, or to economic transactions, sexual relationships, diplomatic dealings or scientific experimentations, is religious if it is undertaken with God-consciousness and accords with the values and principles revealed by Him; and it is irreligious if it is in opposition to (or ignorant of) them. Activities related to matters of economy, politics and law, or sex and social manners, are part of man's religious behaviour and do not fall outside its scope. Life is an organic whole and the same principles should guide and govern it in all its ramifications. *Shariah* is the Islamic code which guides life in its entirety. The example of the Prophet Mohammed (peace be upon him) is the model which a Muslim tries to follow and, in his example, one can seek guidance in all aspects of human life, from the highly personal to the purely social - as a man, a son, a husband, a father, a preacher, a teacher, a trader, a statesman, a commander, a peace-negotiator, a judge or a head of state. The Islamic outlook on life is revolutionary as it gives a new dynamism to what has been traditionally regarded as religious. What makes an activity religious is the attitude with which it is undertaken and its conformity or otherwise with the values enunciated by God and His Prophet. With this revolutionary outlook, the entire realm of life is won over to God and Godliness (Ahmad, 1974).

4.4.1.2 Islamic Faith as the Basis of Society

Islam makes faith and religion the basis of the entire human society and the wellspring for the network of its relationships. Other social groups and communities have been founded on race, blood, tribe, geography etc. but in Islam all these differences are subordinated to a higher level of organisation emanating from faith. Commitment to Islam integrates man not

only with God but also with the community of believers. These two relationships branch out from the single act of faith. The Islamic concept of nationhood is not based on race, language, colour, territory or politico-economic affinity. The Islamic community is a fraternity of faith - anyone who believes in the Islamic religion and ideology is an inalienable part of this nation, whatever his or her race, colour, language or place of birth. This is a new principle of human organisation; it is rational and ideological in nature and is capable of embracing the entire human race.

This concept of an ideological community is not merely a moral precept; it also has its social, political and legal dimensions. It produces a new infrastructure for human relations, faith being the decisive force in this system. It gives birth to social institutions, from the family to the state. Islamic culture grows from this faith in the same way as a tree grows from a seed. To some extent, external forces affect it, but ultimately it is the potential of the seed which is fulfilled. This is a unique principle of organisation. Islamic society and culture are ideological and universal in their origin and orientation.

These submissions, the author believes, help affirm an understanding the nature of the Islamic system of life. The Islamic culture cannot be understood if some of its parts are studied in isolation, or in the perspective of cultures based on foundations diametrically different from its own. The Islamic institution of the family should also be studied and examined in the perspective of the Islamic outlook on life and the ethos of the Islamic culture (Ahmad, 1974).

4.4.1.3 The Built Environment as a Reflection of Islam

The main purpose of this part is to provide a general perception of Muslim belief and how this can influence the built environment. Islamic sentiments and ideologies play an important role in the life of the people. Normally, Islamic contributions to the built environment found expression in the settlement pattern and laws in addition to the construction of religious buildings such as mosques. In Islam there are three important cities which are considered being as holy and sacred cities: Makkah Al-Mukarramah, Al-Madenah Al-Munawarah and Jerusalem. These three cities contribute to a large part of its identity of the religious role and meaning for all Muslims all over the world.

(A) The Influence of Islamic Law on Building Tradition

Many scholars have attempted to define the influences of Islamic religion on the formation of urban settlements in the Muslim world. It is generally acknowledged that a set of relatively uniform legislative guidelines was developed through interpretations of the Holy Quran, Hadith (the Prophet's sayings), Ijtihad (scholarly opinion) and traditions. These guidelines had a strong influence on the homogeneity of urban formation and architecture (Hakim, 1983).

A1-Hathloul (1981) identifies four main building and planning principles, which he extracted from written documentation of the urban formation of Al-Madenah Al-Munawarah.

a) The right of way;

b) The avoidance of harming others;

c) The respect of privacy;

d) The right of ownership and usage.

In the matter of the right of way, he discusses the appropriate width of alleys and cul-de-sacs in relation to main streets in addition to the activities which are permitted in these streets, taking into account problems of privacy. He also explains how people share the responsibilities of maintenance and cleaning of these streets. Finally, he identifies what is private, semi-private and public in Muslim cities (Al-Hathloul, 1981).

Regulations enforcing the location and restriction of usages that might cause public harm, such as by emitting undue noise or smoke, show that Islamic principles place emphasis on protecting the public from environmental harm. A1-Hathloul remarks that the fundamental principle of Islamic law behind this issue was that harmful acts against the public good were strictly prohibited (ibid.).

Islamic law draws on the Holy Quran and Hadith in resolving issues of privacy, the right to it and the respect due it. In the context of dwellings, the main concern of the family was for visual privacy, particularly for shielding female members from the eyes of male strangers. Building heights, rooftops and the location of doors and windows, which involved air rights, were important factors, for the right not to be overlooked was primary (ibid.).

The right of ownership and use covered individual usage and the right of joint usage in diverse urban architectural spaces. For example, the significance of a wall between neighbours was a highly sensitive issue, because it involved such issues as ownership of the wall, the right of its use and the right to demolish or rebuild it, all of which could seriously affect the lives, protection and privacy of either neighbour (ibid.).

These building and planning principles, therefore, interacted with local traditions and generated certain building languages, which could be described as 'patterns'. These developed primarily as a communication tool for identifying locally used traditional elements. They encompassed various aspects of building and construction, such as building materials and construction details, building spaces/configurations, and surface treatment. These patterns tended to be operative locally and understood by users and builders.

(B) The Mosque as a Symbol of the Islamic City

The mosque is not only a place to pray but also a gathering place, a focus of the unity of all members of the Muslim Community. Mosques in Muslim cities unite the people, and do not divide them into groups. In old Muslim cities, mosques were built at fixed distances from each other. To demonstrate unity, all mosques have to be oriented towards A1-Kaba'a as instructed by Allah through his prophet Mohammed (peace be upon him) as stated in the Holy Quran: "We see the turning of thy face (for guidance) to the heavens: now shall we turn thee to a Qibla that shall please thee. Turns then thy face in the direction of the sacred Mosque: wherever ye are, turn your faces in that direction. The people of the Book know well that is the truth from their Lord. Nor is Allah unmindful of what they do" (S.II.144).

Figure 4.10: Mosques as a symbol of Islamic cities.
Source: Jeddah Municipality, Up-Grading of the Urban Environment of Cities (Centre of Planning and Architectural Studies-CPAS, Cairo, Egypt, 1986, p6)

The mosque as a social and cultural institution was so important that no community could live without it. It accommodated religious, educational and cultural functions in the community (Naeem, 1985). The social element is supported by the requirement for all members of Muslim society in every district to come to pray five times a day. People will notice anyone's absence from the mosque if he or she has not attended for some time and will begin asking about him or will check on his welfare, a feature developed through the mosque which enhances social contact and the level of care in society. Most mosques in Muslim cities were used for prayer and to teach Islamic sciences and the Holy Quran. From the initial development of schools within mosques, separate buildings were developed near mosques, and this close relationship of mosque and school has not continued until the present (Attieh, 1990).

4.5 Identity and Economy

Cities and urban forms in general have often been seen as being the result of many other factors, for example, economic and political forces. Economics has been widely used to explain settlement and building forms, and its importance is indeed great. The objective of this part is to demonstrate how this comes to be.

The economy of a place has been identified as a major driving power today that affects everything in daily life. The term economy itself can be ambiguous and mean many different things. It is accepted as being fundamental that anything must make economic sense. However, economics can affect our lives in several other ways. Built environments rely on the existence of a local economy to employ its inhabitants and are the 'vessels' in which different activities are undertaken. Those who inhabit the built environment need it

to support their activities, whether these activities are directed at earning a living or constitute other social functions.

Cities and urban centres could grow through their ability to provide more people with the means to earn a living. Urban growth therefore is clearly related to local economic growth. Even the shanty towns of Bombay, South America etc., while offering no economic benefits, are attractive to people who believe they offer more than do other, less-urban environment. The influx of money and wealth attracts more people, thereby creating a growing need for housing and services that are provided for by building. Similarly, a weakness in the local economy will force people to migrate.

Economy does not only affect the growth and decline of the built environment but also that of the urban structure and building forms which, in another way, means the identity. In order to observe this, one must turn ones attention to the economic activities or types such as shops, factories and workshops that the built form accommodates. For example, the layout of an industrial city is different from the layout of an agricultural or touristic city. Changes that take place in the form of local economy will correspond to changes in the built and urban form that accommodate them (Nabih, 1998).

4.6 Summary

Underlying factors are the non-tangible factors which associate with a group of people or a society. These factors include social organisation, culture, religion and economy. From the above review of the different underlying factors, one can conceive the vital and integrated role of them all in shaping the built environment.

In order to understand any specific built environment one should seek to understand the social relationship, culture, belief and economy. When these factors change or are modified, the built environment will also change and modify. In order to preserve and maintain the continuity of any built environment and its basic structure, one must therefore maintain its social order, culture, belief and economy. For example, in the current research change in the identity of the Saudi built environment in the eyes of the Saudis should include change in the shape of the built environment, the change in their social relationship and habits, the massive increase in their average income, their tangling with huge but temporary numbers of foreign labour, and the change in their value system.

Based on the previous argument any city may be identified according to the influences of any of these factors. For example, it could be identified by religion (Muslim City, Christian medieval city) or by economy (Industrial City, Commercial City). Therefore, these factors not only affect the physical pattern of the appearance of the city, but also give the city its unique identity. Disruption of any one of these factors may precipitate an identity crisis of any society and their built environment.

CHAPTER FIVE: IDENTITY OF THE BUILT ENVIRONMENT AS A RESULT OF EVOLUTIONARY PROCESSES

5.1 Prologue
5.2 Identity and Place
5.2.1 Place Character
5.2.2 The Significance of Place
5.2.3 The Image of Place
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5.4 Identity and the Neighbourhood
5.5 Identity and the House
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(5)

IDENTITY OF THE BUILT ENVIRONMENT AS A RESULT OF EVOLUTIONARY PROCESSES

5.1 Prologue

As is argued in the previous chapters, man's desires are for the satisfaction of various human needs and the search for a meaningful 'existence'. This 'existence' represents the wish to create an environment that not only distinguishes man from beasts, but also from other human beings, as belonging individually to one group of people which is itself distinct from other groups (Benswessi, 1987). Therefore a meaningful built environment addresses the surrounding nature and the socio-cultural attitude of the inhabitants. Holod (1980) states that man's significant existence lies in the creation of a physical environment identifiable by a society as its own. One of the most important issues that manifests man's significant existence and which expresses his beliefs, values and aspirations, is the notion of identity.

The built environment can be conceptualised as one component among many meaningful social and cultural objects that are used to demarcate space, to express feelings, promote ways of thinking and social processes, and to provide areas for culturally defined activities as well as to provide physical shelter (Rakoff, 1977). Within the built environment, dwellings and domestic objects are thus constituted as significant objects in which people become conscious of those objects through their beliefs, values and attitudes.

However, modern society lives in a world of fragmented beliefs and conflicting ideologies. In addition, modern society is increasingly literate, which means that it

depends less and less on material objects and the physical environment to embody the value and meaning of its culture. Instead, verbal symbols have progressively displaced material symbols and books, rather than buildings (Tuan, 1977).

The built environment is also vested with meanings. These meanings may become part of the knowledge of daily life as vehicles of conception through which people define and interpret their reality (Geertz, 1973). This fundamental recognition that buildings, like other material objects, may act as signs or symbols, does not deny that buildings have instrumental uses. This perspective underlines the fact that human beings, as symbol makers, can and do attribute multiple meanings to the world which may reflect cultural, social or psychological processes beyond those of instrumental use. Houses thus provide shelter, yet houses also convey achievement.

Hummon (1989) argues that if one recognises that built environment and identity both socially constructed symbolic objects, the mutual relevance of the built environment for identity, and identity for the built environment, becomes clear. On one hand, by learning the meanings of objects, the individual can use the built environment to create a sense of identity, drawing upon their meanings to locate him in reality and to define self-identity. On the other hand, given a sense of identity, the individual can use the meanings of objects to display and communicate identity to him and to others. Therefore the built environment and its objects can, under certain conditions, speak worlds of meaning that can be used to discover, present and maintain identity. For example, the house expresses or ought to express the inhabitants' values and attitudes through its form, style and decoration, interior and exterior.

The relative use of environmental signs for identity in traditional societies is variable, and other aspects of the environment, such as settlement patterns, are frequently more important than the houses. Considering the physical features of the built environment, some argue that identity can be interpreted in relation to the concept of place (Norberg-Schulz, 1965), where it manifests itself within certain constraints that determine the character of a place as being unique.

5.2 Identity and Place

"Identity of place is much a function of intersubjective intentions and experiences as of the appearances of buildings and scenery, and it refers not only to the distinctiveness of individual places but also to the sameness between different places" (Relph, 1976, p44).

(Lynch, 1960) defines the identity of place simply as that which provides its individuality or distinction from other places and serves as the basis for its recognition as a separable entity. Alternatively, "there are two ways in which place has been related to identity. The first is what we will call place identification. This refers to a person's expressed identification with a place, e.g. a person from London may refer to himself or herself as a Londoner. In this sense place can be considered to be a social category and will be subject to the same rules as a social identification... Place identification would express membership of a group of people who are defined by location. If this position is taken then place identification is a type of social identification. The second way in which place has been related to identity is through the term place identity, which describes the person's socialisation with the physical world" (Twigger-Ross and Uzzell, 1996, pp205-206).

"Each place is a unique integration of nature and human culture" (Owen, 1991, p128). The real meaning of place lies in the quality of being somewhere specific, knowing that you are 'here' rather than 'there' (Rapoport, 1975). In our everyday lives places are not experienced as independent, clearly defined entities that can be described simply in terms of their location or appearance. Rather they are sensed in a chiaroscuro of setting, landscape, ritual, routine, other people, personal experience, care and concern for home, and in the context of other places (Relph, 1976). The uniqueness of place, or ones identity with a place is seen as both the cause and the result of the place's quality (Dayaratne, 1992). Accordingly, the uniqueness of place is less likely to be clear when the quality of the environment is poor. In other words, a poor environment does not enable the individuals to identify themselves with significant points of reference. In this understanding, creating quality in places means creating a sense of place.

Norberg-Schulz (1965) stated that place is a totality made up of concrete things having *material substance*, *shape*, *texture* and *colours*. These things together determine the character of the environment, which is the essence of place. These qualities, as a result, influence and determine the uniqueness of that place. Moreover, Tuan (1977) argues that place is an organised world of meaning. Therefore, the manifestation of identity within a particular place is the development of the uniqueness of that place. In this context, every place has its own uniqueness and different places in the world have different characters, which give those places a sense of their particular setting.

Places also change over time and with the introduction of new objects. Oliver and Hayward (1990) state that every new building changes the place in which it is set. In addition, they argue that the siting of the building will affect the lives of those who move in proximity to it in a variety of ways. The changing character of places through

time is, of course, related to modifications of building and landscape as well to changes in our attitudes, and is likely to seem quite dramatic after a prolonged absence. On the other hand, the persistence of the character of places is apparently related to a continuity both in our experience of change and in the very nature of change that together serve to reinforce a sense of association and attachment to those places (Relph, 1976). Time is usually a part of our experiences of places, for these experiences must be bound up with flux or continuity; and places themselves are the present expressions of past experiences and events and hopes for the future (Relph, 1976).

There are several issues which determine the formation of the built environment that in turn reflects a specific identity of place. These are the *character*, the *significance*, the *image*, the *sense* and *perception* of the place.

5.2.1 The Character of Place

The expression of character is one of the most fundamental aspects to the manifestation of identity. Each place has different visual characteristics to do with shape, scale, relative height of the boundary, the appearance and degree of transparency of this boundary, the appearance of the floor as well as of the sub-spaces within the major space. It is these differences which allow us to distinguish easily between places. The differences are further emphasised by the way each space relates to other places, the occurrence or absence of natural elements within the space and its sub-spaces, as well as the amount and type of human usage of the place.

Benswessi (1987) notes that the character of a building seems to manifest itself within the concept of identity in two ways: first, as an expression of the building's intended

purpose and, second, as an emotional relationship between the building and human beings. Therefore, character could be seen as reflecting human values.

Also character brings together the separate functions into a practical understanding. Within the understanding of character in architecture also lies the issue of appropriateness. This implies selection of basic forms that perform their function well and consequently give character. This interrelation between appropriate character and the purpose of a building leads to the idea of typology. Therefore, through the selection of a type, we can recognise the function of the building (house, shop, school, etc.) and its cultural meaning. This implies that typology has two aspects: practical and symbolic. In the first, typology means the selection of a suitable form that could fulfil the function, while in the second it seeks to establish a specific relationship that reflects its origin. In sum, typology can be used to give character and thus, convey meaning through the selection of certain types.

5.2.2 The Significance of Place

Signification deals with the notion of attachment, rootedness and a sense of belonging. It is the thing that turns a work of architecture into more than a building type; it gives it a cultural meaning. Benswessi (1987) defines signification as an attempt to establish an image through which an interpretation of certain cultural beliefs, religious ideals, etc. are meaningfully transmitted. The image is produced by the interplay between form and meaning to establish order and unification within a cultural milieu. Accordingly, this does not make a Bedouin think of an apartment in a high-rise building, nor does it make a city resident think of a tent as a house. In sum, the attitude of signification has been, and still is, a fact through which man seeks to give meaning and identification to his buildings.

5.2.3 The Image of Place

An image is a symbolic expression of certain values rather than an imaginary method that seeks to communicate messages through visual structure. It is the basic bond of any culture, place, organisation etc. which enhances its essential character and behaviour, and consequently gives it an identity (Boulding, 1961). It is believed that an image is a symbolic form that seeks identification through the expression and pronunciation of emotions and feelings of people. It also gives, in expression, a structure to and speculations about how this image reflects our ideals about society (Hubbard, 1980). Thus, the concept of identity becomes manifested in the built environment through the manipulation of images.

Lynch (1960) argued that the recognition of identity has to be adopted through the building of the image, which holds its recognition from the striking physical features of different places. Lynch identified five elements related to our understanding of space in the city: *edges*, *paths*, *nodes*, *districts* and *landmarks*. He saw these as the building blocks out of which we structure the city, both in terms of how it is perceived and how it must be designed. From his studies Lynch developed the concept of 'imagibility', the idea that each particular place can be replaced or synopsised in the mind as an image that can be interpreted easily and clearly remembered.

Interacting with or simply living close to people with perceptually similar attributes provides a sense of belonging; it symbolises a sense of identity with people and place. The social meaning of place, however, may be displaced in time (Hillier and Hanson, 1984). For instance, the nostalgic sense of place involves a looking back. This firmly locates the source of identity in the past.

5.2.4 The Sense of Place

Habraken (1983) argues that the sense of place is an outcome of mutual transactions between people and their built environments. On one hand, it is the realm of the built space and, on the other, it is also the realm of the individual. In other words, the sense of place is not brought into play by the things in the place, but also by people, their minds and their actions.

Tuan (1980) differentiates between rootedness and the sense of place. He argues that rootedness implies being 'at home' in an unselfconscious way, while a sense of place implies a certain distance between self and place that allows the self to appreciate a place.

A sense of place also implies that an environment provides an accurate reading of its past and present, and some idea regarding its future. However, some argue that, when people speak of the need to enhance a sense of place, they do not have in mind new buildings. Rather they are thinking of how to preserve old structures and develop in people a feeling of their own unique pasts.

In this context, several questions evolve. For example, how does one recognise a place, and how can one clarify and interpret the essential qualities underlying the uniqueness of place? What happens when the process of creating place is halted by an external force? What happens to the sense of place among people who can not control its creation? Is it possible for certain people to lose their sense of place as a result of dramatic changes?

The sense of place need not be regarded as the definitive, exclusive categories which are often the end product. In contrast, any one sense of place may be defined by a combination of characteristics. Sense of place may be significant in relation to, and explicable in terms of, identity and material existence. The social sense of place is not only activity-related but also owes much to the importance attached to people, specifically family, neighbours and friends in shaping and defining life in general (Eyles, 1983).

Violich (1985) mentioned three basic sources which give a place its uniqueness: first, the character of the natural environment in which topographic characteristics, including geology, climate and ecology, set the basis for the nature of people's life and represent an important underlying determinant in spatial structural systems and land use relationships. In other words, the spirit of the physical base or natural landscape of a place emerges through our living in that place.

Secondly, the social interaction in the built environment, in which the spatial structural system serves as the framework for the built environment, provides the basic source for identity of a place and for positive interaction among people. The ways in which land uses are related to each other can work positively or negatively to habitual use of a place. In turn, through facilitating communication among people, this becomes the basis for the sense of community. People mould their human activities in places. However, there is a continuous change in places, and people change continuously with places. In addition, people's experiences in a place tie them to that place. Therefore the relationship between community and place is very strong and each of them strengthens the identity of the other.

Thirdly, people and cultural identity, the degree of which is a litmus test for a sense of place, take from place a physical form and activities that facilitate and reflect the culture of those who use it. In this understanding, the essence of place is the meaning that we attribute to places and their identity is largely an expression of communally held beliefs, values, and of interpersonal involvement. According to that, our human and cultural landscape reflects our tastes, values and aspirations, and these affect the creation and the sense of place.

Norberg-Schulz (1980) calls for 'creative participation' as a concept of design and planning that harmonises people's cultural and social needs with natural environment. In this way, people record their particular cultural history and meaning in the built environment and breathe into their settlements a sense of place. Therefore, in order to reveal the sense of place in a certain area, it is essential to recognise the existence of those characteristics of objects that go beyond their purely physical properties, for these intangible qualities provide essential attributes to human well-being. This approach of investigating the environment lays an important basis for understanding places and for building human meaning into places.

5.2.5 Perception of Place

It is not just the image of a particular space which determines how it is perceived and understood. Perception of the spatial characteristics of an individual space also relates, amongst other factors, to the sequence and types of spaces passed through on the way to the space, to the other spaces seen from the particular space, to past knowledge of the space and of similar spaces, to the state of mind, to past experiences of the natural environment, to the individual's cultural, educational, social and economic background, to aesthetic sensibilities and to such factors as state of physical well-being. It also

relates to the evidence of human activities (noise or smell), to who is in the space when it is visited or observed and what the visitor feels able to do or prevented from doing when he or she is there (Beer, 1990).

In perceiving places, physical descriptions, aesthetic evaluations, personal preferences and expectations all fuse together and interact. The visitor, for example, recognises what he/she sees by drawing upon subconscious cultural norms about what a place should look like, in addition, his/her perception and evaluation of the place is influenced by the level of contact required from the place. For example, a place which is to be lived in will be evaluated differently.

In reality, all our modes of experience (perceptual, effective and normative) are brought into action at the same time (Leboyer, 1982). Thus the perception of the environment is more than the sum of perceptions of those objects, which make up that environment. Indeed, the perception of the physical features of the environment is inseparable from social evaluation. In other words, places and people are inseparable and mostly places exist with reference to people, and the meaning of place can be revealed only in terms of human responses to the particular environment. In this sense, whether creating environment as 'insiders' or becoming familiar with this environment as 'outsiders', people identify with or are alienated from places.

The perception of historic places is mostly related to the characteristics of their features. In discussing what distinguishes the historic cities, Tuan writes: "A city does not become historic merely because it has occupied the same site for a long time. Past events make no impact on the present unless they are memorised in history books,

monuments, pageants, and solemn and jovial festivities that are recognised to be part of an ongoing tradition." (Tuan, 1977, p174)

5.3 Identity and the City

Cities, like houses and other places, mirror aspects of the life of their inhabitants. City identity is a reflection of factors and process that operate within culture, including physical, environmental, economic, political, religious, cosmological and social variables (Altman, 1980).

Cities inevitably consists of collection of buildings, streets and spaces between them and one would expect them to be very similar to each other. Yet thousands of cities vary to an extent which gives each an identity of its own. The uniqueness of a city results from the way that city has been organised and adapted to natural, social and cultural forces. Abdalla (1998) writes: "Architecture is a behavioural reaction response first towards the physical environment, and then towards the underlying dimensions" (Abdalla, 1998, p274).

"City identity represents a distinctive lifestyle usually coupled with a strong positive affect with regard to that lifestyle. Some people therefore, do seem to use a place related self-referent in order to present themselves as distinct form others" (Twigger-Ross, and Uzzell, 1996, p207).

Cities convey an image to their inhabitants and outsiders that may be based on symbols, slogans or building forms. When one thinks of New York City, any of several images comes to mind (skyscrapers, Wall Street, Central Park, etc) (see figure 5.1). A city's uniqueness can also grow out of activities such as manufacturing and recreation. Some

cities have an atmosphere or ambience that serve as a symbol, such as the religious values of Jerusalem or the intellectual values of Oxford (see figure 5.2). Through architecture, visual effects, activities, and other means, cities often have an air of being distinctive places. These symbols are often used by outsiders to image a city and by residents to reflect and reinforce their identity with (Altman, 1980).

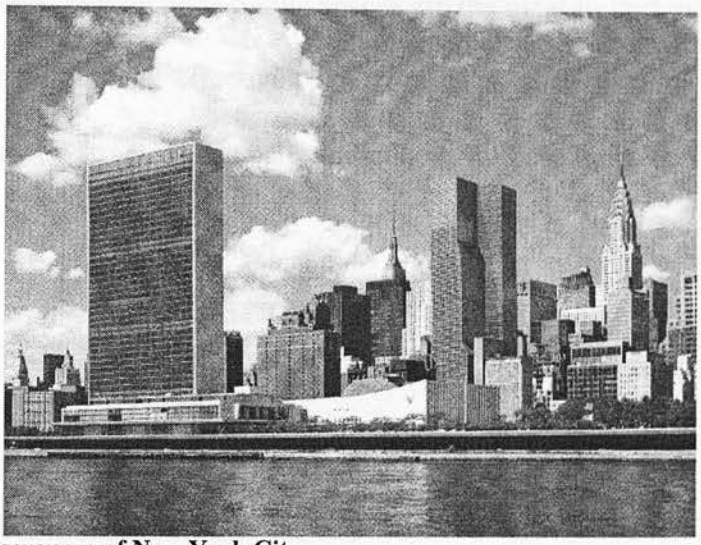

Figure 5.1: Skyscrapers of New York City
Source: Bleecker, S, The Politics of Architecture (The Routledge Press, New York, 1981, p84).

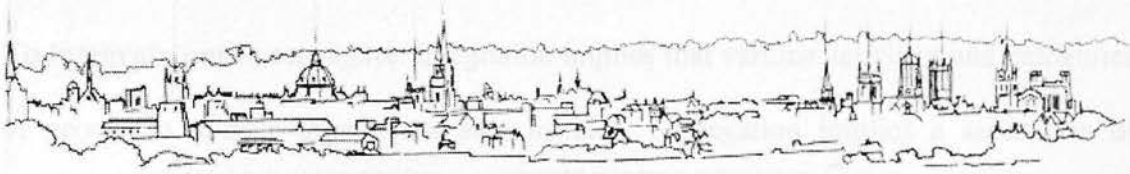

Figure 5.2: Oxford skyline
Source: Attoe. W, Skylines, Understanding and Molding Urban Silhouettes (John Wiley and Sons, Chichester, New York, Brisbane and Toronto, 1981, p88).

Gehl (1987) mentioned number of issues in city planning that can make a city at the large scale or spaces at smaller scale distinctive and add quality to its built environment. These qualities are:

To assemble not to disperse. In city planning there is an effective dispersal of people and activities when residential, public services, industrial and commercial activities are placed separately on large individual tracts of land. This creates a functionally

segregated city structure that is dependent on the automobile as the means of transportation between uses. Dispersal of activities and people is a phenomenon common to nearly all modern areas worldwide.

In contrast to this is the city structure that consistently assembles activities and people in a clear pattern, in which the public spaces are the most important elements. Here one can find many functions effectively and centrally located, alongside and facing the streets. Such a city structure can be found in nearly all old cities (see figure 5.3).

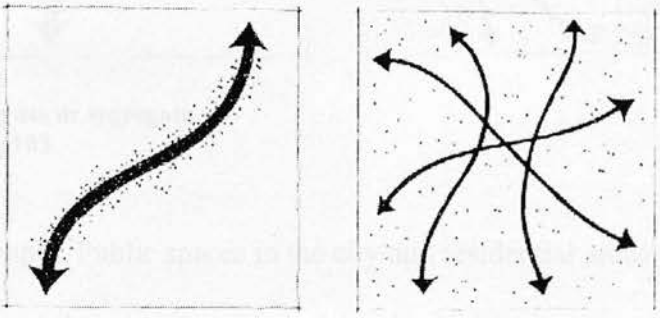

Figure 5.3: To assemble or to disperse
Source: Gehl, 1987, p83.

To integrate not to segregate. Integration implies that various activities and categories of people to operate together or side by side. Segregation implies a separation of functions and groups that differ from one another. Integration of various activities and functions in and around public spaces allows the mix of people involved to function together and to stimulate and inspire one another. In addition, the mixing of various functions and people makes it possible to interpret how the surrounding society is composed and how it operates.

In medieval cities, pedestrian traffic dictated a city structure in which merchants and craftsmen, rich and poor, young and old, necessarily lived and worked side by side. Such cities embody the advantages and disadvantages of an integration-oriented city structure.

Comparably, segregated planning is illustrated by the dogmatic city structure in which the separation of unlike functions is the goal. The result is a city divided into areas in which a single group of people, a single group of professions or a single social group is more or less isolated from the other groups in society (see figure 5.4).

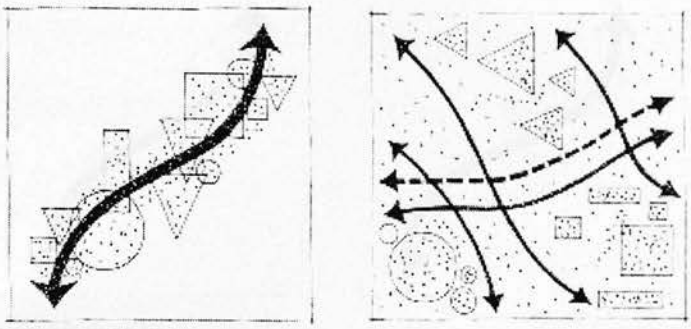

Figure 5.4: To Integrate or segregate
Source: Gehl, 1987,p103.

To invite not to repel. Public spaces in the city and residential areas can be inviting and easily accessible and thus encourage people and activities to move from the private to the public environment. Conversely, public spaces can be designed so that it is difficult to get into them, physically and psychologically (see figure 5.5).

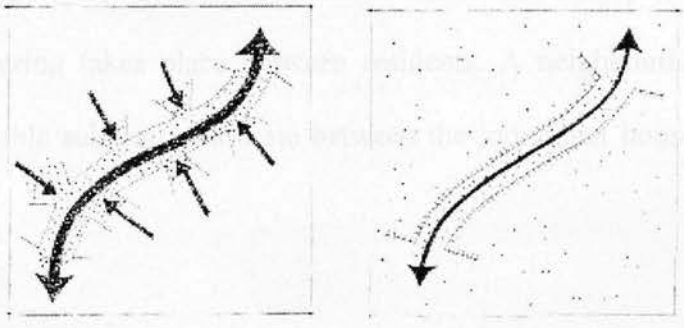

Figure 5.5: To invite or repel
Source: Gehl, 1987, p115.

To open up not to close in. Contact through experience between things that take place in the public environment and things that take place in the adjacent residences, shops, factories, workshops and communal buildings can be a marked extension and enrichment of possibilities for experience, in both directions.

To open up for a two-way exchange of experience is not only a question of glass and windows but also a question of distance. The narrow parameters of human sensory experiences play a part in determining whether an activity is opened up or closed in (see figure 5.6).

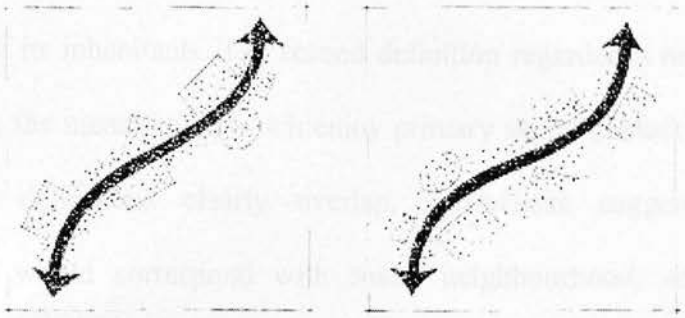

Figure 5.6: To open up or close in
Source: Gehl, 1987, p123.

5.4 Identity and the Neighbourhood

Neighbourhood refers to the home base at the collective level. At its simplest, ones neighbourhood is the geographical space in which one feels at home. This space generally contains the individual's core home base. In other contexts, reference to ones neighbourhood may mean little more than the area surrounding ones house, which probably encompasses housing and persons of similar life-styles, i.e. the general area in which neighbouring takes place between residents. A neighbourhood is basically a small, recognisable sub-unit at a scale between the individual house and the city as a whole.

Ones definition of neighbourhood also depends on sharing, participation and viewpoints, which help to create and sustain the neighbourhood as a reality for its inhabitants and therefore for the larger society too. Sharing could be, for example, the use of the same communal focal point for personal interaction, a common relationship with some nearby institution and common membership in an ethnic group (Downs,

1981). Neighbourhood involves both geography and social structure: "The neighbourhood unit is both a social and a planning concept" (Keller, 1968, p126).

Glass (1948) initially proposes two definitions for neighbourhood. The first regarded a neighbourhood as an area delimited by both physical characteristics and the social characteristics of its inhabitants. The second definition regarded a neighbourhood as a territorial group, the members of which enjoy primary social contact on their common ground. These definitions clearly overlap, and Glass suggests that physical neighbourhoods would correspond with social neighbourhood, as defined by the catchment areas of schools, shops, and public facilities.

'Neighbourhood', however, has deep roots in the past, when cities were frequently divided into areas of functional homogeneity. Modern neighbourhoods have lost their functional integrity. They have been seen by planners as a distinct entity consisting of a variable number of residential units and a selection of low-order facilities such as grocery store, offices, schools, and parks. Local residents make concentrated use of these day-to-day shopping, educational and leisure facilities, although for less frequent higher-order services such as department stores, major cinemas and stadiums, they often need to go beyond the neighbourhood. The ethnic, cultural and social characteristics of this ideal neighbourhood are such that the inhabitants share a common set of standards. (Porteous, 1977).

The neighbourhood is thus both a formal entity (a physical unit) and a functional entity (a social unit). The neighbourhood unit, defined as a physical unit with a distinct identity reflected in social interaction and based on common activity patterns. When we talk about neighbourhood identity we are mainly talking about subjective qualities such

as co-operation and participation between neighbours. This means that a neighbourhood has a distinctive identity when there is a strong relationship between its inhabitants. However, people tend to appreciate a neighbourhood when they feel the people around them are friendly and similar to themselves. No dout these feeling reflects their manner, culture and sense of belonging.

5.5 Identity and the House

Houses or dwellings are the results of interaction of *Man* - his nature, aspirations, social organisation, world view, way of live, social and psychological needs, individual and group needs, economic resources, attitudes to nature, personality, fashions and the techniques available - and *Nature* - climate, site, materials, structural laws and landscape (Rapoport, 1969).

When people speak about their 'home', they use this term to cover different meanings, ranging from the physical dwelling place, a sense of relationship with other people within a social network and a base of activity on one hand, to conceptions of a place of refuge or continuity, a personalised place and a symbol of self identity on the other. This indicates that the term 'home' is popularly used in ways closely tied to identity. Some relate the term 'home' with the phenomenology of daily life a place to return to. Others describe it as a sense of belonging or a sense of being at ease (Hummon, 1989; Norberg- Schulz, 1980).

The house is the fixed point which transforms an environment into a dwelling place. As an architectural figure standing forth in the environment, the house confirms our identification and offers security. The house interior possesses the quality of interiority and acts as a complement to our inner self (Norberg- Schulz, 1985).

The dwelling has been a major subject of man's symbolising perception and cognitive processes from primitive times. In turn, he has projected upon his shelter symbolic designations which relate it to nature and reflect man's myths and religions (Oliver, 1975).

In contemporary society, dwelling places are significant symbols of social rank and class identity because families and individuals of different classes translate differences in economic resources into housing units of different size, quality, style and locale. Therefore, the house becomes a major vehicle for publicly defining and displaying social rank, both to ones self and others. The villa, the house and the apartment all convey different associations of social rank. Moreover, the location of the dwelling also reflects social rank. Such differences in economic resources of class are also translated into differences of group identity in interior and exterior decorations.

5.6 Summary

This chapter discussed the qualitative aspects of the built environment as being a cultural composition and manifestation of identity. The aim was to explain how the built environment is constructed as a formal structure and how this structure produces cultural signs and symbols in order to reveal specific identity.

The successful use of environmental elements in communicating identity depends on the cues being noticed and the meaning understood, i.e. on the intended receivers being able first to notice and then to decode and understand that the cues usually used to express identity. These cues might be clothing, houses or furnishings which in order might be for example indications of social status. The codes of identity are learned through culture and then communicated to those who can decode the messages. Consequently, these messages place people in social space and help them to act

appropriately and instruct them how to present themselves in social conventional means if they desire to communicate their significance to a maximum number of people. It is then clear that a person would not be able of comprehensively decode and understand all cues in a context considered to be foreign to him/her.

The sense of place is identified here as an outcome of mutual interactions of people and their built environment. The present study intends to examine the concept of identity by demonstrating the interaction between the introduced features such as buildings and the specific existing characteristics, which represent the uniqueness of that place.

The built environment comprises physical and non-physical variables. The former includes the artificial arrangement of different surfaces, the use of different textures, illumination and degrees of transparency or translucency, and of the spaces between them. This is the result of people's alterations of environments to achieve their physical functional needs. The latter includes the symbolic meaning within the geometric space. Places cannot be created through the physical attributes alone but through the activities that take place there, as related to the cultural values of the societies. Therefore, it is insufficient to limit ones understanding of the built environment to its geometrical properties. It has to be regarded as also comprising essential geographical and cultural environments. The way people structure the surfaces of the world around them affects all the interactions between them and the physical environment the properties of which can be changed to afford new activities and aesthetic experiences or to enhance old ones so that all types of environment serve their social purposes. The changes reflect the beliefs and attitudes and resources of time and help provide a pattern for the future. Sometimes everybody gains through the changes that are made; sometimes some people gain at the expense of others. Sometimes short-term gains result in long-term losses, and sometimes everybody loses

CHAPTER SIX: GENERAL BACKGROUND ABOUT SAUDI ARABIA

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(6)

GENERAL BACKGROUND ABOUT SAUDI ARABIA

6.1 Prologue

At the beginning of twentieth century King Abdul Aziz unified the Kingdom of Saudi Arabia under his control, before which most of urban centres had been under the control of the Ottoman Empire. Ever since, the country has been in the grip of turbulent changes in both social and physical environments, with many factors responsible for this (see Chapter One). The new changes have affected almost every aspect of the way people live as well as their built environments. Therefore, the examination of these developments is the first step towards understanding the process of change and modernisation of the different regions with in the country.

In the process of understanding the relationship between man and the built environment within the Saudi society we need to have a clear initial idea about Saudi. For achieving this aim, four main subjects are discussed in this chapter: the natural environment, the social environment, the built environment and the economy of the country.

This chapter begins by defining the location of Saudi and giving an account of its geographical components as well as the general seasonal changes in temperature, rainfall, relative humidity and wind direction. Then it describes its social structure, the religion, the population, its social trends and the ethnic history of the different regions. A knowledge of the different traditional built environments within Saudi Arabia, and of the modern urban areas, is important in order to understand how things have changed from indigenous communities to modern cities. The last part discusses the economic conditions of the country as an important factor for development.

6.2 Natural Environment

6.2.1 Location

The Kingdom of Saudi Arabia lies at the crossroads of Asia, Africa and Europe. It forms part of Western Asia and is separated from Africa only by the Red Sea. Its unique location has allowed it to play a major role in world trade since ancient times, as it has always been transit point for people migrating Eastwards, Westwards or Northwards.

Saudi Arabia covers 80 % of the total area of the Arabian Peninsula (see figure 6.1). The area of Saudi Arabia is 2,250,000 square kilometres, it extends between 34° and 56° longitudes and between 17° and 32° latitudes (Ministry of Information, 1991).

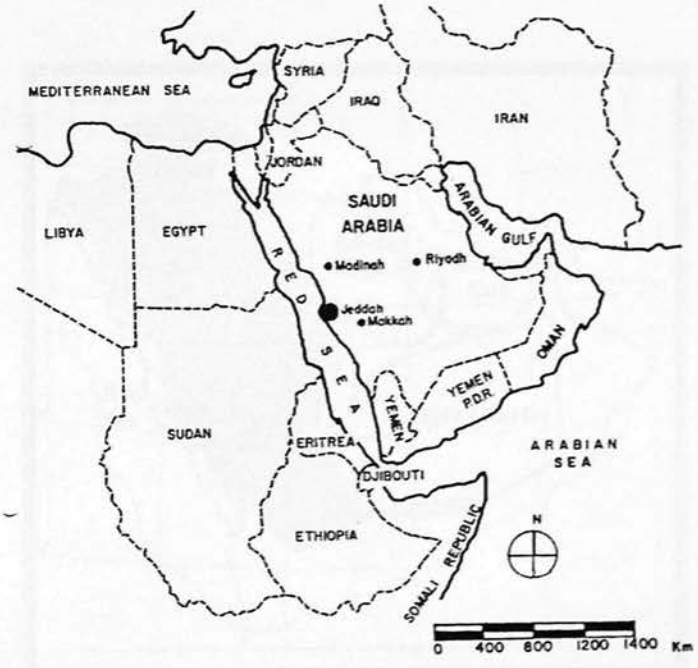

Figure 6.1: Saudi Arabia location
Source: Sert Jackson International (1980).

6.2.2 Geographical Features

Because of its large area and its varied topographical structure, Saudi Arabia can be divided into five main regions, Western Region (Hijaz), Southern Region (Asir), Northern Region, Eastern Region and Central Region (Najd) (see figure 6.2).

The most important topographical features are the Tihama coastal plain that lies along the Red Sea. This is 1100 kilometres long and 60 kilometres wide in the south, gradually narrowing to the North until it reaches the Aqaba Gulf. To the East of the plain lies the Sarawat chain of mountains that rises to 9000 feet in the South and gradually falls to 3000 feet in the North. Several large valleys slope Eastwards and Westwards from the chain. To the East of the chain stands the Najd plateau that extends Eastwards to the Dahna dunes and Southwards to Wade Al-Dowser. The plateau stretches Northwards to the Al-Nafud Desert. The Eastern coastal plain is 610 kilometres long and consists of a large sandy area. The Southern part of Saudi Arabia occupied by the Empty Quarter, which is considered to be the world's largest arid desert covering an area of about 640,000 square kilometres (Ministry of Information 1990).

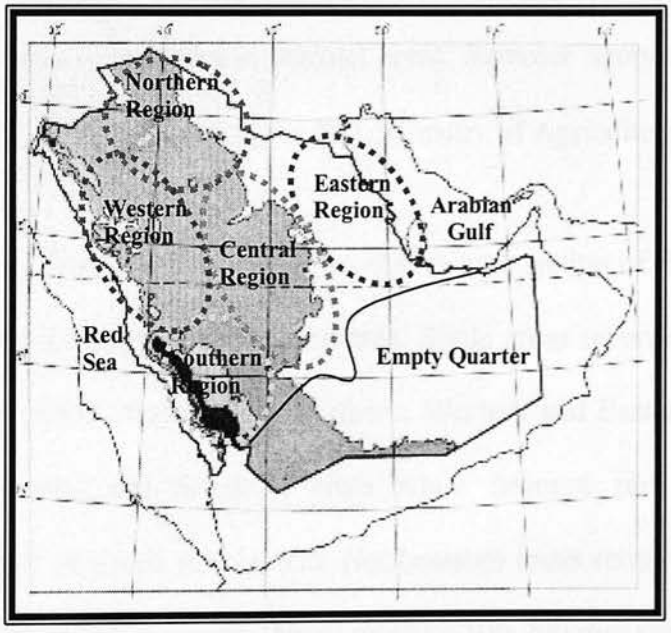

Figure 6.2: Main Geographical Regions
Source: Kaizer Talib (1984).

6.2.3 Climate

Saudi Arabia is one of the driest countries in the world, although the climate varies from one region to another on account of various topographical features. The climate is principally determined by the Southerly shift in wind patterns during the winter months, which brings in rain and cooler weather. Other factors, such as latitude, proximity to the

sea and altitude also affect the climate. The Kingdom is generally hot in summer and cold in winter, and its rainfall is concentrated in the winter months. A moderate climate is experienced in the Southwestern part of the Kingdom, a dry hot summer and cold winter in the interior parts and high temperature and humidity in the coastal areas (Ministry of Agriculture and Water, 1980).

The temperature of the air masses surrounding Saudi Arabia differs widely from one season to another and from one area to another. The most moderate seasons in Saudi Arabia are spring and autumn. These periods enjoy relatively cool nights and sunny warm days. Summer is hot with temperatures in some areas reaching 49°C (see figure 6.3). Winter is cooler with an average temperature of 23°C. During winter the temperature falls below 0°C in some areas, excluding the coastal areas which, in winter, record temperatures higher than in internal areas. Summer temperatures in the central areas often reach over 48°C (see figure 6.4) (Ministry of Agriculture and Water, 1980).

Rain usually falls during winter and spring due to the meeting of the Mediterranean air currents with the Sudanese low-pressure area. Some areas receive occasional summer rain. Moderate rainfall occurs in the Northern, Western and Eastern areas. Spring rain falls on the central and Southern areas while summer rain falls only on the Southwestern part of Saudi Arabia. The Northeastern areas receive more rain that the Western areas. The Central Region (Najd) receives 100-200 mm rainfall per year, which falls mainly in winter. The Southern Red Sea Heights receive rainfall throughout the year caused by the tropical air masses which blow into this area, and this is heaviest on the higher ground. Rainfall peak times are winter, spring and summer. The average rainfall in this area is between 200-600 mm. The driest part of Saudi Arabia is the Empty Quarter in the south. Rainfall within Saudi Arabia varies widely. Sometimes

dispersed and sometimes localised heavy rain in short periods can cause sudden and rapid floods (see figure 6.5) (Ministry of Agriculture and Water, 1980).

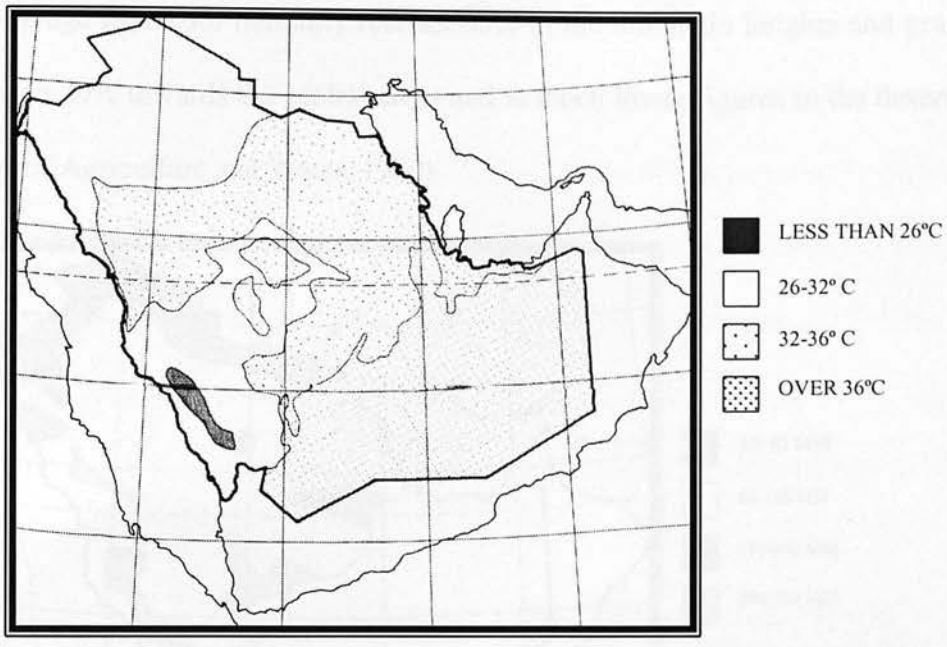

Figure 6.3: Average Summer Temperature
Source Kaizer Talib (1984).

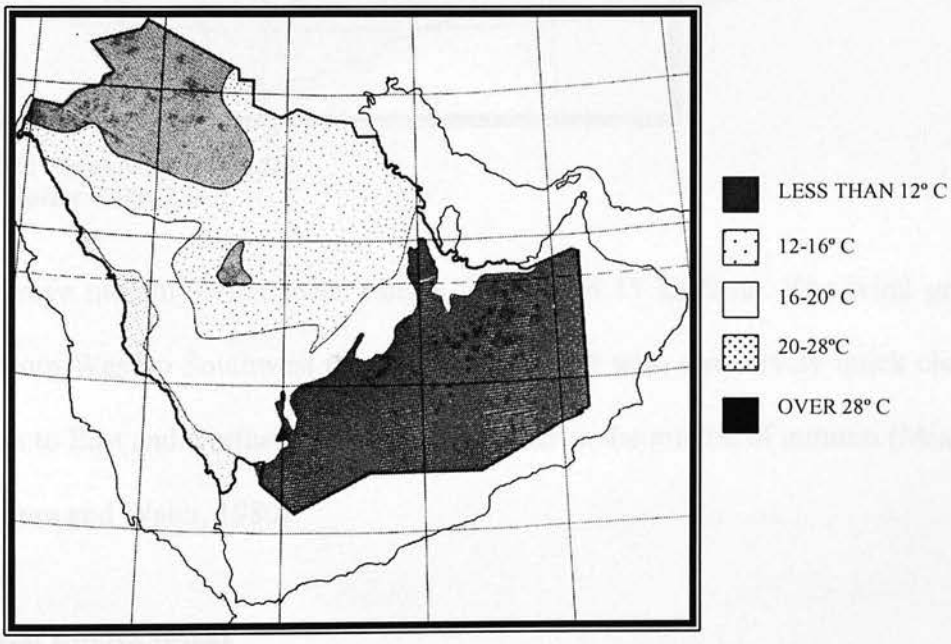

Figure 6.4: Average Winter Temperature
Source: Kaizer Talib (1984).

The relative humidity along the Red Sea coast is fairly high throughout the year and does not show the seasonal variations common to the Arabian Gulf and internal areas. The central areas of Saudi Arabia have a much lower relative humidity figure often below 10% during summer months. This figure rises during winter, when scattered

rainfall takes place between November and April. Relative humidity in the Western and Southwestern highland areas reflects the influence of the different air masses. The annual average figure for humidity reaches 60% in the mountain heights and gradually decreases to 30% towards the central areas and to much lower figures in the desert areas (Ministry of Agriculture and Water, 1980).

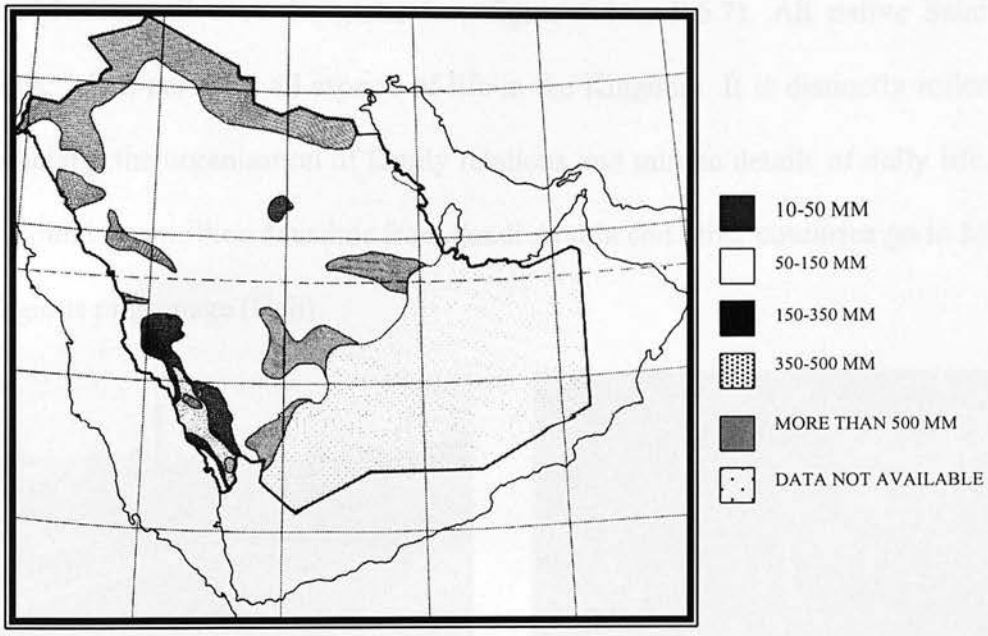

Figure 6.5: Mean Annual Rainfall
Source: Kaizer Talib (1984).

The average monthly wind speed ranges from 12 to 15 km/hour. The wind generally blows from West to Southwest throughout the winter with a relatively quick change of direction to East and Northeast from early summer to the middle of autumn (Ministry of Agriculture and Water, 1980).

6.3 Social Environment

Great development in Saudi Arabia in the last few decades accompanied an over-zealous approach towards modernisation and development. The outline of the ethnic history helps one to understand Saudi society, its roots and the influence of urban society on relations with the past.

6.3.1 Religion

Saudi Arabia was predetermined to have an eminent role in history since it had been chosen by God as the cradle of Islam, the starting point for his last Prophet and Messenger. Two of the most important cities in Saudi Arabia are Makkah Al-Mukarramah and Al-Madenah Al-Munawarah and these places capture the hearts of a billion Muslims all over the globe (see figure 6.6 and 6.7). All native Saudis are Muslims. Islam pervades all aspects of life in the Kingdom. It is distinctly reflected in the judiciary, the organisation of family relations and minute details of daily life. Each year, around two million Muslims from Saudi Arabia and other countries go to Makkah on religious pilgrimage (Hajj).

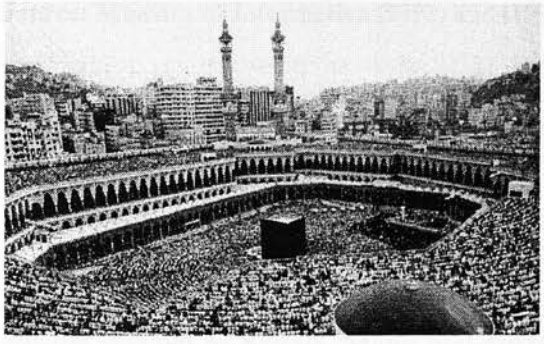

Figure 6.6: The Holy Mosque of Allah in Makkah Al-Mukarramah
Source: Ministry of Information, 1997.

Figure 6.7: The Holy Mosque of the Prophet (pbuh) in Al-Madenah Al-Munawarah
Source: Ministry of Information, 1997.

6.3.2 Population

The Saudi population has been growing steadily since the establishment of the Kingdom of Saudi Arabia in 1932 and particularly until the 1950s. Increasing revenues from oil and the tremendous improvements in the provision of health care and educational services have also contributed towards increasing the population.

Saudi Arabia has a population of about 19,895,232 people about 74.2 percent of the people are citizens (14,872,804) and 25.8 percent non-citizen (5,022,428). Citizens are native people whom settled in the Arabian peninsula hundred years ago and other

people or descendants of people who arrived later from neighbouring countries and settled in Saudi Arabia, they all holding Saudi citizenship. The other 25.8 percent are non-citizens living there temporary (usually 2-8 years) because of the large number of jobs created by the country's oil wealth. About three-quarters of non-citizens are concentrated in the large urban areas (Ministry of International, 1990) (Ministry of Planning, 1999).

Year AD	Population
1958	4,649,100
1965	5,362,284
1970	6,199,174
1975	7,216,009
1985	11,100,000
1991	14,160,000
1996	16,929,294
1999	19,895,232

Table (6.1): Population Growth (1958-1999)
Source: Ministry of Information (1991) and (1996) and Ministry of Planning (1999).

Due to the sudden wealth the Saudi labour force has androgen tremendous change. A large number of citizens moved from law-profile occupations linked to pastoral nomadic and people services to government jobs and the oil boom brought tremendous wealth to most of Saudis. Many non-citizens replaced citizens in these jobs in addition to many other high profile jobs to help in the country's developments (see table 6.2). Most of them are working in low-profile jobs and they form about 90% of people occupying these jobs because of their low salaries compared to what citizens want for the same job. In addition to that most citizens does not prefer to work in low-profile jobs due to the lack of social acceptance. All these things together with the low percentage of citizens female in the total labour force due to social constrains and the high percentage of young people under 15 years in the total citizens population (Al-Hamdan, 1990), resulted in that citizens have been very narrow in the low-income class (see table 6.3).

No.	Occupation	Number
1	Geologist and chemist	2122
2	Engineer	35656
3	Expert, consultant and accountant	22059
4	Physician, pharmacist and Nurse	66415
5	Teacher	54571
6	Student	10908
7	Author, journalist and translator	2118
8	Manager, administrative and secretary	33155
9	Clerk	11328
10	Workers in trade	149576
11	Workers in services	670,738
12	Workers in Agriculture, livestock production and fishing	336,127
13	Skilled labour	757,854
14	Unskilled labour	945,368
15	Domestic labour	884,311
16	Others	42041
17	Accompanying	379,698
TOTAL		**4,40,401**

Table (6.2): Distribution of official non-citizens temporary inhabitants by occupation.
Source: Ministry of interior, immigration department, Riyadh 1999.
Note: There is about 621027, unofficial temporary inhabitant most of the are unskilled labours.

Monthly incoming by (SR)	Citizens	Non-Citizens
500 –2000	2.4%	48.5%
2000 – 4000	7.1%	33.9%
4000 – 6000	15.2%	8.3%
6000 – 8000	47.2%	5.0%
8000 – 10000	14.9%	2.9%
More than 10000	13.2%	1.4%
Total	100%	100%

Table (6.3): Distribution of household in Saudi Arabia by monthly income.
Source: Statistical Yearbook, the Central Department of Statistic 1998

6.3.3 Saudis' Social Structure

Saudi society is a combination of Bedouin life and that of the settled populations. Over many centuries, urban society continued to develop while the Bedouin lifestyle changed little. The economic change of the twentieth century and the rise of the oil industry has lured people to the modern lifestyle. Villagers and tribes people from all over the country, and even most Bedouin, have abandoned their traditional ways and environment by the many opportunities in towns and cities. Arab and non-Arab temporary residents from all over the world have been welcomed to assist in the country's development. The native citizens Saudi Arabia is therefore divided into three main categories, reflecting various ways of life: *Bedouins*, *villagers*, and *urbanites*.

Bedouins constituted the majority of the population during the first half of the 20th century. However, this way of life gradually altered under the pressure of rapid social and economical development. The number of Bedouins dwindled through state resettlement projects, involving the reclamation of agricultural lands, the setting up of hamlets and relocation of several tribes. The 1974 General Population Census showed that Bedouins constituted only 27% of the population; this dropped to less than 10% in the 1991 Census. Even this remaining population cannot be strictly categorised as Bedouin. For, although they continue to shift from one place to another, they use modern means to do so, such as trucks to transport their animals and luggage. They also make use of water tanks, radio and TV. Nonetheless, although these 'surface structure' externals of their lives have changed, the Bedouin sense of spirit and independence remains intact in the culture at large.

Villagers (this includes oasis dwellers) used to constitute the second largest category of the population, but their numbers have also decreased due to migration to urban areas. The conspicuous change which Saudi village life has undergone is manifest in the construction of concrete buildings, the abundance of public utilities and services and modern communication facilities. Villagers only constituted 15% of the population in 1991.

The number of urbanites in the Kingdom of Saudi Arabia has dramatically increased in parallel with the sharp drop in the number of Bedouins and rural dwellers. In the 1991 Census seventy-five per cent of the population was concentrated in the cities which have attracted national inhabitants, as well as people from abroad. Having developed with breathtaking speed, Saudi cities now contain networks of roads, gardens, spacious houses and trade centres. Their stores are flooded with goods from all over the world.

6.3.3.1 The People of the Central Region

The province of Najd is the heart of Saudi Arabia. Its inhabitant Najdis are a gifted and remarkable people. They are very conservative, particularly in their attachment to their natural environment. Family allegiances remain strong. Najd is not easily accessible, so was never a magnet for foreigners.

In the eighteen century a religious scholar of Najd, Sheikh Mohammed Ibn Abdul-Wahhab, determined to bring Najd and the rest of Arabia back to the original form of Islam. It was at the beginning of the twentieth century that King Abdulaziz Ibn Saud started to unify the Kingdom from Najd (Stacey International, 1987).

6.3.3.2 The People of the Western Region

The Western area is known as the Hijaz and its people are called Hijazy. The origins and distribution of the Hijaz have been influenced strongly by geography and climatic conditions. Where there was water in an area, communities of farmers and traders grew up. In areas by the Red Sea fishing communities formed. But where arid conditions predominated, settlements were fewer and people adopted a virtually nomadic way of life.

The Hajj (annual pilgrimage to Makkah Al-Mukarramah) brought new ethnic and cultural strains into the Hijaz and, as the word of the Prophet (pbuh) spread, so this diversity increased. Many who came, stayed, while others brought their skills to service the pilgrimage. For example, groups from India, Java, Turkey, Tunisia, Yemen and Egypt have become absorbed into the Hijazy urban way of life. The wide variety of geographical features and habitats is reflected in the traditional social diversity of the inhabitants of this region. The Bedouin interrelationship with the settled coastal

fishermen, the townsmen and the oasis farmers was generally harmonious; each depending on the other for essential goods and services (Stacey International, 1987).

6.3.3.3 The People of the Eastern Region

The Eastern region a region of very ancient settlements. Its inhabitants lived in the great palm tree oases such as Hofuf with its abundant water and fertile land, or in the many fishing and trading ports on the Arabian Gulf such, as Al-Khobar, whose inhabitants supplemented their livelihood with pearl fishing. Nomads who lived along the Northern edge of the Empty Quarter moved their entire households every few days throughout most of the year in the search of pasture for their animals. There was a steady movement of people into the region by sea whenever conditions allowed travel routes to develop. In this way, non-tribal elements were added to the population, and the coastal centres thrived (Stacey International, 1987).

6.3.3.4 The People of the Southern Region

The inhabitants of the upland Southern region (known as Asiry) are blessed with rainfall throughout the year. They lead a settled life as cultivators of the soil and as herdsmen. The Southwest, however, is not all fertile highlands. To the West lies the lowland Tihama where sandy valleys and a sandy shore stretch along the Red Sea. The influence of Africa could be seen in the traditional live of the southern people along Tihama coast (Stacey International, 1987).

6.4 The Built Environment

6.4.1 Different Traditional Urban Environments

There is a need to understand architecture historically within the contexts of Saudi Arabia in order to achieve continuity. Saudi Arabian traditional concepts of planning

and urban forms show similarities with most of the Islamic cities in the world; dense, compact, and integrated (see figure 6.8). It is recognised in Saudi Arabia that the influence of religion created a certain type of organisation and that the need for privacy resulted in special details in the micro-environment of the rural or urban layout. Saudi architecture and urban planning was not based purely on religious requirements but effectively took into consideration the climatic and geographical elements of the region. The variation of climatic condition in Saudi was a major factor in the evolution of very different traditional styles of architecture and urban built environment. External influences also played a part in this evolution. These influences were predominantly Turkish/Egyptian in the West, Persian in the East, and Arab Yemeni in the uplands of Asir. In the Central Region of Najd, however, since it was never under external influences, the traditional architecture is entirely a product of local conditions.

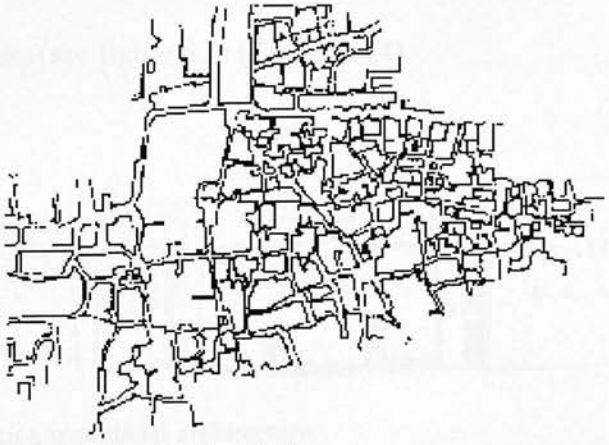

Figure 6.8: Traditional urban pattern in Saudi cities
Source: Sert Jackson International (1980).

Contemporary architectural expression within the Kingdom is now seeking to understand and assimilate these traditional forms after a period of modern internationalism. An age of spacious elegance and appropriate forms and use of materials is returning to present day architecture and townscape.

6.4.1.1 Central Region

The Central Region of the Kingdom of Saudi Arabia includes the capital, Riyadh, and a number of other important towns North and West of the capital, such as Buraidah, Unaizah and Ha'il. Being the capital city, Riyadh has experienced more than a tenfold expansion in the last decade. Traditional architecture in this area was designed to respond to the climatic conditions. Courtyard houses are common, not only in these cities, but also throughout the arid regions of the world. Such houses possess a unique 'outdoor' space within the house which acts as a climatic moderator and, at the same time, allows privacy of individual life. The main building material of traditional architecture is unfired mud brick finished smooth by the application of a mud wash. The mud walls are very thick and provide insulation against the extremes of the local climate. Courtyard or atrium houses, when grouped together sharing three walls and having only narrow streets in between, create an environmentally consistent and harmonious townscape (see figure 6.9) (Talib, 1984).

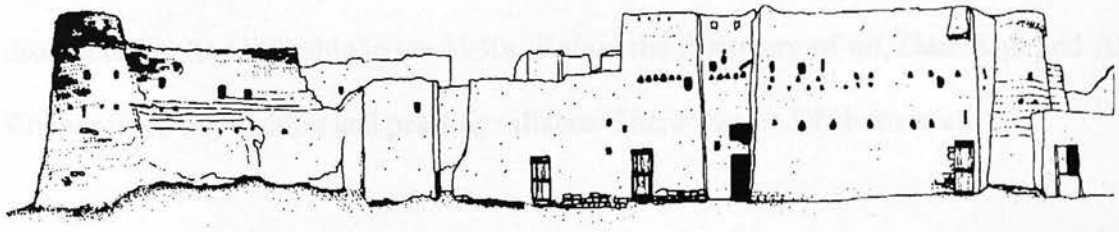

Figure 6.9: Central Region traditional architecture
Source: Talib (1984, p88).

6.4.1.2 Western Region

Makkah Al-Mukarramah, Al-Madenah Al-Munawarah, Jeddah and Taif are the major cities of this region and they once shared a common architectural style. This local conformity was due to common influences brought about in the area by the pilgrims and by trade connections. The buildings were two, three or more storeys in height with flat roofs (see figure 6.10). The entrance was often vaulted by a round-headed arch with a

decorated wooden door. Other decoration was concentrated into the elaborate wooden screens (*Rawasheen* plural) which covered the upper floors of the buildings at windows and balconies. These screens provided privacy for residents as well as helping to capture sea breezes to provide a respite from the humid climate (see Chapter Seven) (Magrabe, 1982).

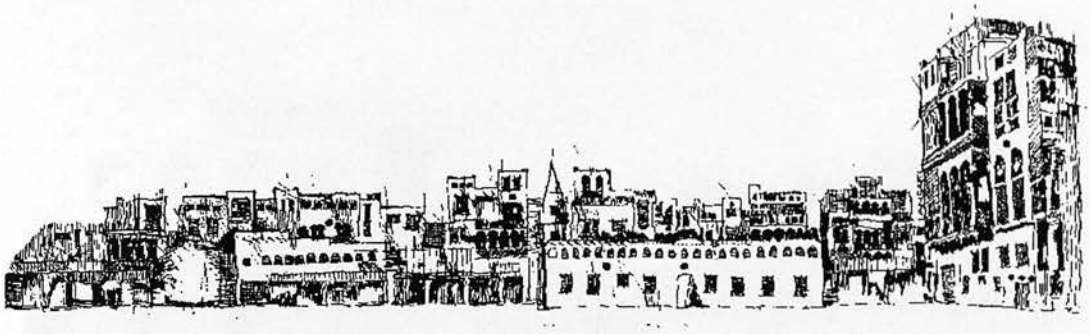

Figure 6.10: Western region traditional architecture.
Source: Farsi, 1984, p188

6.4.1.3 Eastern Region

Bordering the Arabian Gulf and containing the towns of Dhahran, Al-Khobar, Dammam, Qatif, Hofuf and Jubail, the Eastern Province is where oil was first discovered in Saudi Arabia in the 1930s. Before the discovery of oil, Dammam and Al-Khobar were tiny fishing and pearling villages. There was no Dhahran at all.

The climate is similar to that along the Red Sea, with high humidity and persistent, uncomfortable heat in summer. While building materials vary from mud to coral aggregate, the traditional architecture bears no significant relationship to buildings of central region, but has a marked similarly to buildings in its neighbours like Persia, Bahrain, Qatar and Dubai.

During hot and dry periods, the vernacular structure of thick mud walls and wood-framed, mud floor and roof collects the cool night air that descends from the courtyard,

and retains it until late in the following afternoon. A row of opening sliding wooden boards called *badgirs*, which can be closed during a sandstorm, control the amount of ventilation in the house. The courtyard still plays an important role as the main source of light and cool air. Thus, the design and layout of the influence of Persian architecture is visible only in the decoration of entrances, doors, windows and openings in the courtyard (see figure 6.11) (Talib, 1984).

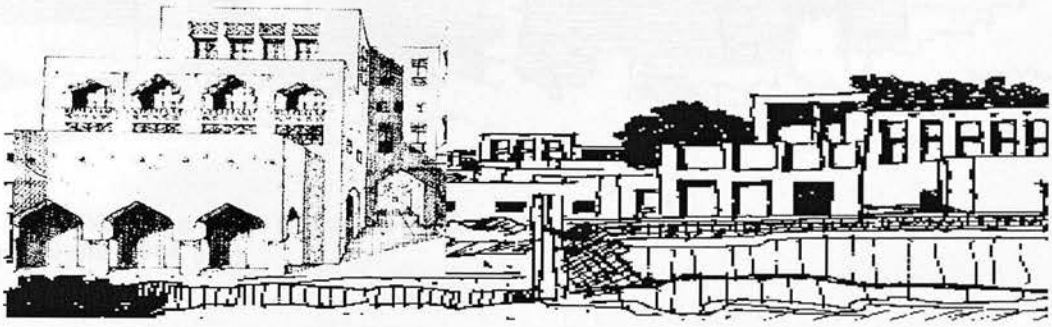

Figure 6.11: Eastern Region traditional architecture
Source: Talib (1984, p89).

6.4.1.4 Southern Region

The Asir, as the Southwestern corner of the Kingdom is known, is an area where there are mountains, some of the mountains reach to 10,000 ft. in elevation a rainy climate and green landscapes, and life without air-conditioning is bearable. Until King Abdul Aziz conquered it in 1922, Asir was an independent kingdom. Because of its location, Asir has always had close ties with Yemen and this is reflected not only in the customs of the people but also in their architecture.

Abha, Khamis Mashayt, Bisha and Najran are the urban centres of this hilly region. Settlements both large and small are often defensively positioned on hilltops. Rectangular and round watchtowers are a constant feature of this village architecture. These have inward-sloping walls, small apertures at the roof level and vary in height and proportions. The houses of Abha are built of mud and stone. In constructing these

buildings, mud layers are successively placed above one another, and each layer is left to dry before another is added. Horizontal rows of projecting slate slabs are placed between each mud-layer to break up the flow of frequent rain, which would otherwise dissolve and wash the mud away (see figure 6.12) (Talib, 1984).

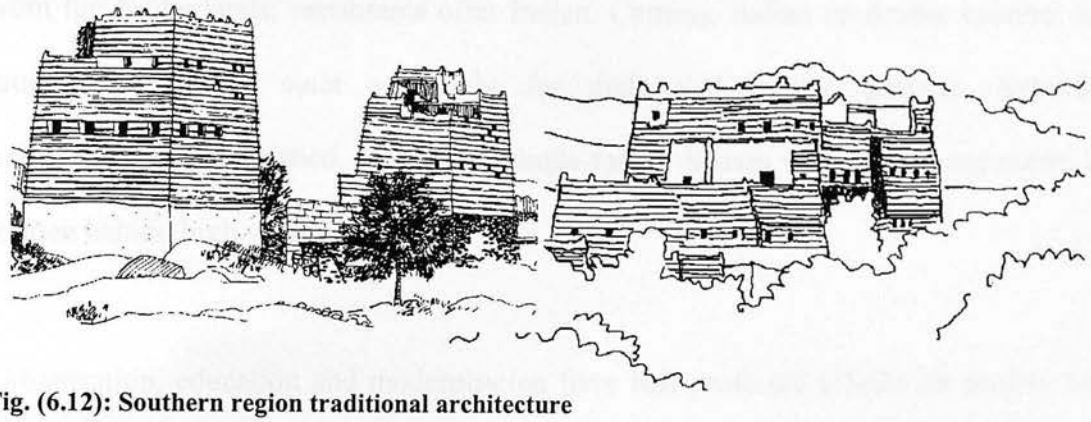

Fig. (6.12): Southern region traditional architecture
Source: Talib (1984, p96).

6.4.2 Modern Saudi Arabian Built Environment

Before the boom years of the 1960s cities and towns in Saudi Arabia were still small settlements surrounded by strong walls. Roads connecting cities and towns were non-existent. Saudi cities entered a period of rapid development. The population became large, modern infrastructure was introduced and completed, and high-rise and modern buildings turned the old adobe desert town into the large and modern city. Few of the original towns have survived this comprehensive modernisation of the country.

The unprecedented massive construction in Saudi Arabia in the early years of the 1970s transformed the Kingdom, in terms of amenities and standards, into a modern country. Construction was not confined to new buildings. Roads and the public utility services of electricity, telephone, water and sewerage, took up the major part of government investment. Total government expenditure on projects during the period 1970-1985 amounted to the huge sum of $165 billion (Ministry of Information, 1990).

After decades of intense modernisation, the country's urban infrastructure is highly developed and technologically sophisticated. Excellent hospitals, clinics, schools, colleges and universities offer free medical care and education to Saudi citizens. Shopping malls display the latest Paris fashions; supermarkets sell vegetables flown in from the Netherlands; restaurants offer Indian, Chinese, Italian or Arabic cuisine; and amusement centres cater separately for male and female patrons. Suburban neighbourhoods flourished, typified by single-family houses with swimming pools, all hidden behind high walls.

Urbanisation, education and modernisation have had profound effects on society as a whole, but especially on the family. The urban environment has fostered new institutions, such as women's charitable societies, that facilitated associations and activities for women outside the family network. Urban migration and wealth have broken up the extended family household, as young couples left their home towns and established themselves in single-family homes. Education for women has also encouraged the rise of the nuclear rather than the extended family household.

Changes wrought through urbanisation and development had disruptive consequences for traditional notions of the family and brought closely related and deeply held religious values into question. For men, the consequences were particularly unsettling because these changes brought their position of control and protection of the family into question. Education, urbanisation and modernisation introduced women to areas of public space from where, culturally, they had traditionally been prevented, for public space was space reserved for men. The physical world around Saudis was changing. Social groupings were realigning, status categories were shifting and economic dislocations were altering people's income expectations. In such a fluctuating world, for

both men and women, clinging to traditional attitudes about women in the family was an expression of a desire for stability in the society at large.

6.5 Economy of Saudi Arabia

Before the discovery of oil in Saudi the majority of the people lived in small traditional rural settlements with a subsistence economy centred on agriculture and nomadic pastorals. Very few urban centres existed, and these depended on other sources of income like trade, traditional industries and services for pilgrims in the cases of Makkah Al-Mukarramah and Al-Madenah Al-Munawarah.

Saudi Arabia today has a rapidly developing economy based largely on oil, industry, and agriculture. Petroleum is by far Saudi Arabia's most important natural resource and the chief source of its wealth. The country's huge oil fields contain about 255 billion barrels of oil (about a fourth of the world's known oil reserves). Saudi Arabia also has deposits of copper, gold, iron and other minerals and only a few of these deposits have so far been developed (Ministry of Information, 1997).

Since the 1960s the Saudi government has launched massive programmes, with the help of business and technical experts from Europe, Japan, the United States and other parts of the world, geared towards accelerating the grow of the industrial and agricultural sectors and building a supporting infrastructure. Such a programme would allow the country's economy to keep expanding, even after the oil resources have dried up.

The Kingdom's economic policy is based on shrewd investment of revenues, a free market economy, the government adoption of many major foreign products, diversification of the production base by encouraging the industrial and agricultural

sectors, development of local manpower and realisation of economic co-operation at all levels (Ministry of Information, 1997).

6.6 Identity Crisis in Saudi Arabia

Identity is a two-way relationship between the individuals and communities. In addition, different groups could view the identity of one group positively or negatively. In the case of Saudi Arabia, people feel that they belong to a series of levels of communities: *geopolitical/ international*, *religious* (Muslim), *ethnic* (Arab), *national*, *regional* and *local* (see figure 6.13).

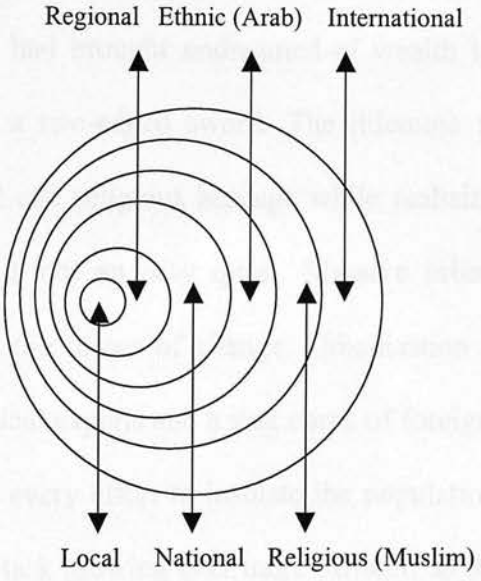

Figure 6.13: Identity Crisis in Saudi Arabia
Source: The author.

The first and the largest entity is the geopolitical/international level of identity. People in Saudi Arabia see themselves as part of the new international system. This level has formulated since the 1970s, that introduced Parisian fashion USA funding and UK contractors into Saudi Arabia life. The second level of identity includes the Islamic world because Islam is the religion of all Saudi people. The third circle of identity is the ethnic Arab community; people in Saudi Arabia have always seen themselves as part of

this large and distinctive Arab community. The fourth level of identity, the national, is the Saudi entity. As this ascribes belonging to a political entity formed less than a century ago, this is weak and still its infancy. The fifth circle of identity, the regional, recognises the different regions within the kingdom; this has been weakened by the development of the national identity. The last level of identity, the local, is related to the cities and is probably the most important one as concerns this thesis because it is under the greatest change. This level of identity includes smaller levels which are discussed in the following chapters. These different circles of identity have brought different changes to the society as well as the built environment.

Massive oil revenues had brought undreamed-of wealth to the Kingdom. Affluence, however, has proved a two-edged sword. The dilemma that Saudis now face is to preserve their cultural and religious heritage while realising the advantages that such wealth can bring. It is not an easy quest. Massive urbanisation and the economic situation have fuelled the forces of change. Urbanisation brought with it new social groups students, technical experts and a vast corps of foreign workers among them. The government has made every effort to insulate the population from the influence of the foreign community, a task growing ever more difficult as the number of non-Saudis in the work force increases.

Many conservative Saudis might also complain that the local culture in threatened by the massive mixing with various and different cultures which came with the non-citizens temporary inhabitant after the economical boom. One of the main objectives of the fifth development plan (1990-1995) is to maintain continuity in the Saudi society. All that increases the need of documentation and preservation actions of the original Saudi culture.

6.7 Summary

This chapter has traced certain developments and changes in Saudi Arabia from the beginning of the twentieth century to the present day. The aim has been to understand those changes that have led to the present features of the physical and non-physical environments in Saudi Arabia. The author has argued that we can best understand the process of change in these environments by analysing the factors affecting its development. Therefore, the chapter has attempted to identify the factors influencing the change within Saudi Arabia.

The most significant factor was the historical and political development in the Arabian Peninsula since the beginning of the twentieth century because since then things have kept changing dramatically. In addition, the rapid economic development has had a major influence in all aspects of life.

The social environment has undergone several changes of lifestyle and population distribution while changes in social structure have had enormous effects on the built environment. Saudi Arabia is at a crucial stage of development, and the physical environment being built today is of significant concern to all Saudis.

Housing forms a major part of the construction activities in the Kingdom. In recent times, new forms of housing have been brought into Saudi Arabia. In many instances contemporary housing built under the pressure of rapid urbanisation and economic growth exhibits a preference for the international style rather than developing the concepts and details of vernacular architecture. The designs of buildings can not be separated from the life-style of those who live in them, and the living environment being built today will influence generations of Saudis to come.

CHAPTER SEVEN: JEDDAH THE CASE STUDY

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(7)

JEDDAH THE CASE STUDY

7.1 Introduction

In order to gain an insight into the development of identity in Saudi Arabia, the investigation focuses on the city of Jeddah in the western region of Saudi Arabia. This is the city of the author's background and therefore he can contribute to any analysis from his own life-experiences, knowledge of the scale of change in Jeddah and countless other insights. Jeddah also has importance in its location and historical development as a typical Saudi city. The built environment in Jeddah has changed much in the last few decades, which is the case in most cities of Saudi Arabia as a result of the social, cultural, technological and political changes that have occurred in the country. The buildings and their spatial organisation, including the streets and open spaces, have dramatically new characteristics. In addition, the traditional identity of the city has been obscured as a result of the neglect of the traditional social and built environments.

Jeddah, once a modest town located on the shores of the Red Sea, is the largest city in Saudi Arabia's Western region. Today it is full of industry, technology and modern human life. The recent story of Jeddah is one of expansion on a massive scale. This expansion has been both rapid and has happened, mostly within the past 50 years. A look at the figures is staggering. In 1947, the city encompassed no more than one square kilometre, and its population was about 60,000 inhabitants. Now, with a population of more than one and half million, Jeddah occupies an area of 560 square kilometres and stretches for 80km North to South along the coastline.

This chapter introduces the case study city of Jeddah and its people. Subsequently, the built environment of the city is discussed. The intention is to illustrate the changing built environment of the city, including the architectural forms, building types and public places of the city past and present. The aim of this chapter is to explain the major factors influencing the built environment in Jeddah, including the physical features of the environment, the historical changes that have taken place and the cultural characteristics of the people.

The investigation was based on two resources: firstly, information from documentary sources which describe the city during its history; and secondly, the observations of the author.

This chapter is divided into five main sections. The first section describes the physical characteristics of the city including the location, climate, the city role, and population. The second section discusses the establishment of the city and its historical growth during different eras. The third section examines the urban structure of the city and the socio-cultural characteristics of the people within the traditional city in order to identify the relationship between the environment and people. The fourth section discusses the change of the urban form and the socio-cultural features of the city since the demolishing of the city wall in 1947. The fifth section examines the identity of the contemporary city.

7.2 Physical Data

7.2.1 Location

Jeddah is located in the Western Region of Saudi Arabia, on the Tihama Coastal plain between the Hijaz Mountains and the Red Sea. It has a unique location at a natural break in the coral reef halfway down the eastern coast of the Red Sea and is located at the meeting point of latitude 21° 12' North and longitude 39° 12' East. It lies in a flat area of about 3810 square kilometres free from any significant topographic relief except for some coral rocks (see figure 7.1) (Ministry of Information, 1996).

Besides Jeddah, there are other principal cities in the Western region like the two holy Muslim cities of Makkah Al-Mukarramah (where the Prophet was born in the 6th century AD), which is about 70 km East of Jeddah, and Al-Madenah Al-Munawarah (the holiest city in Islam after Makkah) which is about 425 km North of Jeddah. Taif and Yanbu are other important cities in the region.

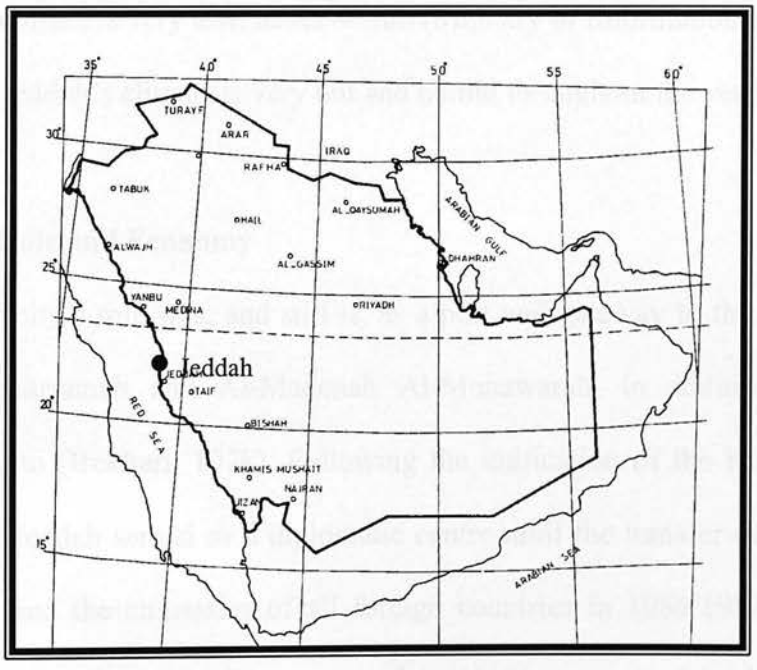


Figure 7.1: Jeddah Location
Source: (Talib, 1984, p133).

7.2.2 Climate

The location of Jeddah has a very marked effect on its climate. Average humidity is high for most of the year, particularly in the summer season when the city is affected by an extension of the low pressure current responsible for the Indian Monsoons and which consists of a front of hot and moist air. Humidity reaches its peak during the summer because of the high temperature of the seawater, and drops in winter due to the effect of the moderate air front accompanying the low pressure current. The summer temperature sometimes approaches 50°C.

The prevailing winds come from the North and Northwest and are very persistent throughout the year. They are usually light to moderate most days of the year. Because of its location on the Red Sea, Jeddah experiences diurnal wind changes commonly referred to as *sea breezes* (Z. Al-Lyaly, 1990). Rain is very rare in Jeddah, although the city is subjected to winter and spring rainfall brought by the Southern wind from the Red Sea. The average annual rainfall is very low, about 40mm (Ministry of Information, 1996). Generally we can say that Jeddah's climate is very hot and humid throughout the year.

7.2.3 The City Role and Economy

Historically, the city's role was, and still is, as a port and gateway to the two Holy Cities Makkah Al-Mukarramah and Al-Madenah Al-Munawarah, in addition to any local commercial role to (Bokhari, 1978). Following the unification of the Kingdom of Saudi Arabia in 1932, Jeddah served as a diplomatic centre until the transfer of the Ministry of Foreign Affairs and the embassies of all foreign countries in 1986/1987 to Riyadh, the capital city. However, due to the importance of the city, many consulates have remained in the city for Hajj and business representation.

Today Jeddah is the principal city of the Western Region. Due to its location on the Red Sea coast, it bears many responsibilities. On the one hand, it is the main gateway by air, sea and land for pilgrims going to the two Holy Mosques and who arrive and leave via the King Abdul Aziz International Airport, Jeddah Islamic Port, or other roads linking the southern part of the Kingdom to this major port on the Red Sea coast. On the other hand it is a major commercial, industrial and cultural centre. The city is also a very active financial centre because of its open policy towards both East and West in the three continents of Asia, Africa and Europe (Ministry of Information, 1996).

Jeddah houses the headquarters of most major banks in Saudi Arabia. Jeddah also serve as one of the tourist centres in Saudi Arabia due to its beautiful coastal location and the availability of a complete range of recreational services.

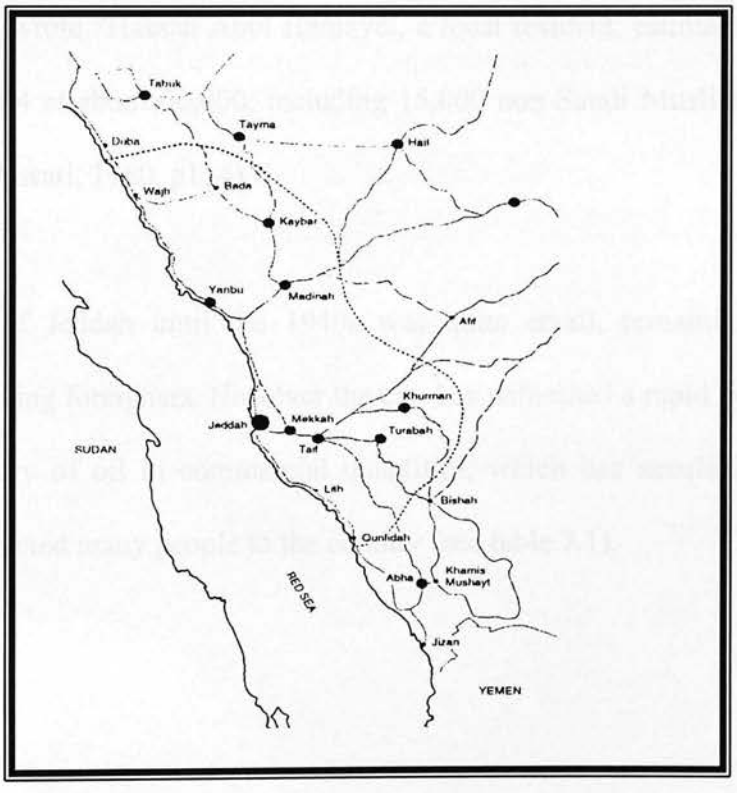


Figure 7.2: Regional setting of Jeddah
Source: Jeddah Action Master Plan, Technical Report No. 5, 1980.

7.2.4 Population Growth

It is difficult to establish accurate figures for the population of Jeddah in history. All of the estimated population figures before 1960 were based on either local estimations or those of travellers who visited the city.

N. Khosrow (1004-1077) the Islamic traveller gave one of the first estimates of Jeddah's population in 1050 AD when he visited the city, relating that Jeddah had 5,000 inhabitants, (Khosrow, 1945). In 1807 A. Bey, a Spaniard whose original name was Domingo Badia Y Lebich, and who had studied medicine, astronomy and mineralogy, visited Jeddah on January 13th, 1807 and put the figure of Jeddah residents at 5,000 people (Bey, 1816). In 1901 I. Refaat put the population's figure at 25,000 (Refaat, 1925) while M. Al-Batanuni estimated the population of the city in 1909 at about 50,000 inhabitants (Al-Batanuni, 1911). Al-Ansari wrote "Hassan Abul Hamayel, a local resident, estimated the city's total inhabitants in 1934 at about 60,000, including 15,000 non-Saudi Muslims and about 100 Europeans" (Al-Ansari, 1980, p114).

The population of Jeddah until the 1940s was quite small, remaining below 60,000 inhabitants, including foreigners. However the city has witnessed a rapid population growth since the discovery of oil in commercial quantities, which has accelerated the national economy and attracted many people to the country (see table 7.1).

YEAR	POPULATION	SOURCE
1050	****5,000***	***Khosrow, 1945***
1807	5,000	Ali Bey
1814	12,000	Burckhardt, L T
1831	22,000	Dr Edward Ruffel
1839	15,000	Hericourt, R D
1854	30,000	Charles Didier
1860	****15,000***	***Maltzan H*** (Al-Ansari, 1980)
1883	****18,000***	***Al-Bustani Encyclopaedia*** (Al-Ansari, 1980)
1901	25,000	Ibrahim Refaat
1909	50,000	Al-Batanuni, M L
1911	****20,000***	***Encyclopaedia Britannica*** (Al-Ansari, 1980)
1912	****30,000***	***Encyclopaedia of Islam*** (Al-Ansari, 1980)
1933	30,000	H. St. John Philiby
1934	60,000	Hassan Abu Al-Hamayel
1958	200.000	Twitchell, K S
1959	106.000	The Consultant Engineering Office in Al-Khober
1961	150,000	Wilson Murrow Int.
1962	147,900	First National Population Census
1971	381,000	Robert Matthew Johnson Marshall & Partners Survey
1974	569,204	Second National Population survey
1978	862,363	Sert Jackson International Saudi Consult, Survey
1981	****1,000,000***	***Ministry of Information, 1996***
1991	****1,500,000***	***Chamber of Commerce and Industry, 1991***

Table (7.1) Jeddah's Population
Source: (Jastaniah, 1984).
Note: * added by the author

7.3 Historical Development

The origin of the city's name poses an interesting dilemma for etymologists. ***Juddah*** in Arabic means 'seashore; but can also mean 'way' or 'beaten track'. In this context the inference could be to Jeddah's geographical location as a Red Sea port from which pilgrim routes radiate inland to the Holy place of Islam, which seems logical enough. Yet again ***Jaddah*** means 'grandmother' and might allude to the traditional belief that "the grave of Eve, mother of Mankind, might be found near the city" (Ibn Al-Mujawer, 1954, p55). This story is strongly denied by scholars who are considered authorities of this subject. "***Jeddah*** is, in fact, incorrect, but it is the popular name and it is popularly used by most Saudis" (Al-Ansari, 1980, p50).

The historical records on Jeddah show that the city underwent several economic, political, architectural and social transformations since its origins. Our emphasis here is to review the most important historical eras which influenced the urban and architectural form of the city as well as social life.

7.3.1 First Establishment

The first establishment of the city of Jeddah dates back to 2200 years ago, almost eight decades before the birth of Islam (Al-Ansari, 1980). Much evidence tells us that Jeddah was a small fishing village for a group of Arab anglers, who used to harbour there after long fishing trips. After that it was inhabited by Qudaah bin Mad and his son, Qudaah being the second son of Mad bin Adnan, "who is the 19th great-grand father of the prophet Mohammed" (Ali, 1970, p284). "One of Qudaah's descendants, known as Juddah bin Jarm bin Rabbah bin Hulwan bin Umran bin Al-Haf bin Qudaah, was named after the place in which they lived" (Ali, 1970, p241).

Historical records tell that the Persians used to live in Jeddah in the sixth century AD. Ibn Al-Mujawer, a geographer born around 1204 AD in Damascus, describes the foundation of the city by Persian in the early days of Islam in his book *Tarikh Al-Mustabsir*. He relates that after the destruction of Siraf (a city in Persia), its inhabitants moved to settle on other shores. Some of these migrants arrived and settled at Jeddah, and later built around the city a wall of stone and gypsum mortar, which was ten handbreadths wide. Subsequently they built a new wall on the outer surface of the old one, five handbreadths wide and made of squared limestone blocks cemented to gather by gypsum mortar, so that the total width of the two adjoining walls became fifteen handbreadths. Four gates were opened in that wall. Around the wall, a great moat was dug and which was filled with seawater, was flowed thus making an island of the city. After this fortification of the city, its inhabitants feared a shortage of water; they constructed sixty-eight reservoirs within the town and as many without (Ibn Al-Mujawer, 1954).

There is no clear evidence of why the port of Makkah Al-Mukarramah was transferred from Jeddah to Al-Shuaibah (a small village on the Red Sea, about 30 km South of Jeddah). The most likely version is given by Yagut Al-Hamawy the famous geographer, (1178-1229 AD) in his book *Mujam Al-Buldan* he explains that the Makkah Al-Mukarramah tribe Quraish, anxious to repair and reconstruct the Kaba shortly before Islam and after its destruction by a flood, were able to obtain wood for it at Al-Shuaibah. This wood came from an abandoned ship. From that time until the spread of Islam Al-Shuaibah was therefore the seaport of Makkah Al-Mukarramah (Al-Hamawy, 1955-57).

7.3.2 Early Islamic Era (7th century)

Jeddah's importance was established in 646 AD by Uthman, the third caliph, who was urged by the merchants of Makkah Al-Mukarramah to use Jeddah as their port in place of the earlier port Al-Shuaibah, because it was safer and closer to Makkah Al-Mukarramah (Refaat, 1925).

Jeddah's flourishing era began with the spread of Islam, at the same time that Makkah Al-Mukarramah, as the focus for the Muslim world, became a great commercial and importing centre just before the mid seventh century AD. Goods and supplies then came to Makkah Al-Mukarramah from Egypt and India through Jeddah. Even when the economic and political importance of Western Arabia diminished as a result of the shifting of the capital of the Islamic Caliph to Damascus under the Ummiyad Caliphs and to Baghdad under the Abbasid, Jeddah maintained its prestigious location as a port to the two holy cities Makkah Al-Mukarramah and Al-Madenah Al-Munawarah.

Ibn Haugal, one of the great Islamic travellers, says in his book *Surat Al-Ard,* completed in 988: "Jeddah was prosperous, rich in commerce and very affluent, and there was not in the Hijaz, apart from Makkah Al-Mukarramah, a city possessing more wealth and more merchandise. The city's trade was in the hands of the Persians" (Ibn Hawqal, 1938, pp31-32).

N. Khosrow wrote in his book *Safar Nameh* of Jeddah as a great city located on the coast of the Red Sea and surrounded by a heavy wall with two gates, one towards the sea, one towards Makkah Al-Mukarramah. He estimated the population of the city at about five thousand inhabitants. "The bazaars were beautiful. There was no building to be seen

outside the city, except a mosque known as Masjed Al-Rasul (the Prophet Mosque). There were neither trees nor any vegetation in the city; all the necessities for everyday life were brought from nearby villages" (Khosrow, 1945, p74).

From these accounts one can conclude that the city of Jeddah flourished as an important seaport and commercial centre and that this prosperity was sustained by the overall stability and expansion of the Islamic world during the ninth and tenth centuries AD.

Eventually at the end of the eleventh and the beginning of the twelfth centuries, Jeddah declined due to the struggle in the Hijaz Region "between the Seljuk Turks and the Ayyubids of Egypt. But most likely, the immediate cause of the decline of Jeddah must be attributed to the subversive activities of the Qaramatians, Shi'ah Muslims who flourished in Iraq, Yemen and Bahrain" (Bokhari, 1978, p66).

In the twelfth century, Jeddah's commercial prosperity declined. The wealth merchants of the city abandoned it after the mid twelfth century for political and economic reasons, leaving behind the fishermen and workers. Ibn Jubair, an Arab traveller (1145-1217), observed the deterioration of the town on his account *Rihlah* (Journey). In this document Ibn Jubair gave a very different account about Jeddah, describing it as a 'village' on the coast. Most of its houses are of reeds, but it has inns built of stone and mud, on the top of which are reed structures serving as upper chambers and having roofs where at night rest can be found free from the ravages of the heat. He adds that in this village are ancient remains, which show that it is old. Traces of the walls that encompassed it remain to this day. In it is a place having an ancient and lofty dome, which is said to have been the lodging place of Eve, the mother of mankind (God's blessing upon her). He also writes that

outside the city are ancient constructions, which attest to the antiquity of its foundation and that it is said to have been a Persian city. It had cisterns hewn from the hard rock, connected with each other and beyond count in number. They were both within and without the town, and men had told him that there were hundred and sixty outside the town, and the same number within. He indeed saw a great number, such as he could not count them, as well as many things of wonder (Ibn Jubair, 1964).

In early thirteenth century the geographer Ibn Al-Mujawer (1204-1291) visited Jeddah. He wrote about the town in his famous book *Tarikh Al-Mustabsir*. Ibn Al-Mujawer was the first to draw a map of the city of Jeddah (see figure 7.3). He wrote that "Jeddah is in the coastal part of the Hijaz, at the beginning of the 2nd climate. It is the port for Makkah Al-Mukarramah lying on the seashore at two days (walking or Caravan) distance from Makkah Al-Mukarramah. Jeddah is a flourishing city". He continued "During the pilgrimage season it is impossible to inhabit this city because of the large crowds of people converging on it from the far corners of the world, from Egypt, from the west, from India and from Yemen. When [at these times] water becomes scarce, the inhabitants bring it into the city from Al-Qarin, which is mid-way between Makkah Al-Mukarramah and Jeddah" (Ibn Al-Mujawer, 1954, pp42-52).

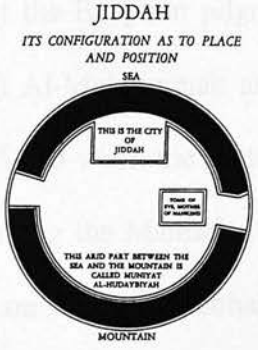


Figure 7.3: Plan of Jeddah in the early 13th century. This is the oldest diagram of the city and its surroundings
Source: Ibn Al-Mujawer, 1954, p44.

He then described the people of Jeddah and its houses "The people of Jeddah are descendants of the Persians. They build with limestone and palm fronds, and the city is mostly composed of inns. Whoever builds in the city a palm frond hut pays the sultan a yearly tribute of three royal dirhams. Conversely, there is nothing to be paid for houses built with stones and gypsum, as these are for the ownership and enjoyment of their landlords" (Ibn Al-Mujawer, 1954, pp42-52).

From the accounts of Ibn Al-Mujawer and Ibn Jubair it can be deduced that Jeddah regained some of its original nature and prosperity since fifty years ago.

7.3.3 Mamluk Era (13th century)

"Until the fifteenth century the town of Jeddah and the whole Hijaz region had been under the control of the Ashraf of Makkah Al-Mukarramah. Although Egypt, under the Mamluk from the mid of thirteenth century onwards, took an increasing interest in the town until they actually garrison the Hijaz in 1425, placing Jeddah under Mamluk political and economic superintendence" (Khan, 1981, pp16-18).

In 1269 AD (667 H) the Sultan Baybers of Egypt, upon accomplishing the Hajj, left behind a ruler and an army to protect the Egyptian pilgrims, but his real purpose was to try to establish control over Makkah Al-Mukarramah and Hijaz. This garrisoning of the Hijaz Region was completed in 1425 AD when the protection of Hijaz was transferred to Cairo under the Mamluk Sultans. During the Mamluk era the importance of the city of Jeddah increased due to its location on the international trade routes and the city once again flourished.

During this time Ibn Battutah (1304-1396), the great traveller, visited Jeddah in 1330 AD. He wrote in his book *Rihlat Ibn Battutah* (Journey of Ibn Battutah) that Jeddah was an old town on the coast, said to have been founded by the Persians. He also mentioned that there is old construction outside the town and that Jeddah has numerous reservoirs bored in solid rock and connected with each other. He adds that in Jeddah there is a mosque known as the Ebony mosque. Ibn Battutah wrote that Friday prayer would only be held in the mosque if forty inhabitants appeared. This might be an indication of the population shrinking in Jeddah by the first half of the 14th century (Ibn Battutah, 1967).

More than a century after Ibn Battutah, in 1503 AD, an Italian traveller named Lodovice di Varthema visited Jeddah. He says in his book *Travels of Lodovico di Varthema from 1503-1508* in 'Concerning Arabian Deserts' that this city is not surrounded by walls, but very beautiful houses, as is the custom in Italy. His observation that the town was unwalled suggests that the wall had fallen into ruins. He then adds that it is a city of a very extensive traffic, referring to the movements of pilgrims (di Varthema, 1928).

By the beginning of sixteenth century, the Mamluk Supremacy was challenged by the appearance of the Portuguese, whose military might became very conspicuous in the Eastern waters around 1502. The Portuguese coveted the riches and economic resources of the East, and their frequent attacks on Muslim shipping at the beginning of the century presented a new menace to the port of Jeddah. The Mamluk Sultan Qansuah Al-Ghuri, Sultan of Egypt and Lord of Hijaz from 1501 to 1517 AD perceived this threat. He ordered the appointed Governor of Jeddah, Hussein Al-Kurdi, to secure the city with a strong wall, which was completed in 1511 AD, making it a strong base against the Portuguese (see figure 7.4).

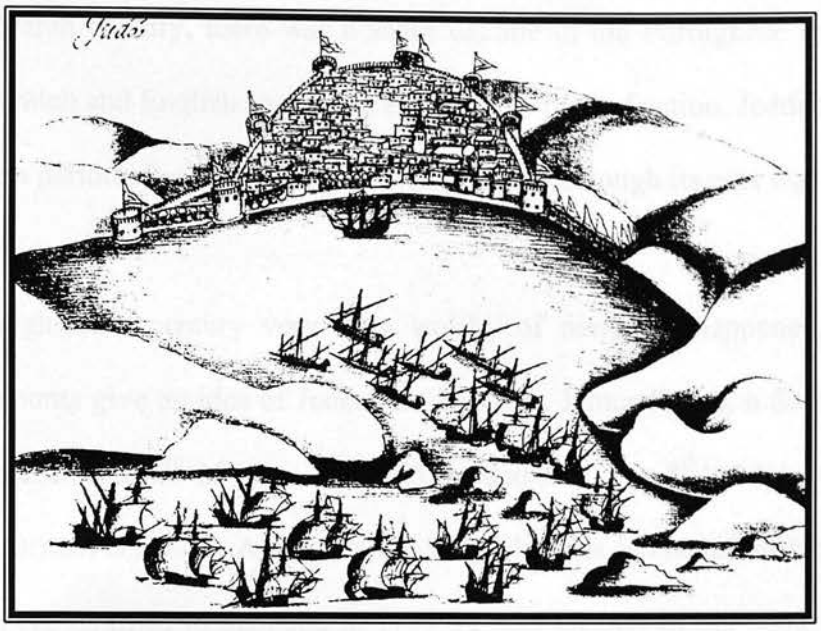


Figure 7.4: A sixteenth century view of Jeddah, showing the Portuguese ships near the city port in the year 1517 AD.
Source: From a drawing by Gaspar Correa in the Museum of the Lisbon Geographical Society, Reproduced in Pesce, 1977, p86.

7.3.4 Ottoman Era (16th century)

The fall of Cairo to the Ottomans was in 1517 AD. This era ushered in relative stability during which much of the traditional town of Jeddah was developed. Until the end of seventeenth century the Portuguese did not relinquish in their attempts to establish themselves in the Red Sea. In 1580 an anonymous Portuguese described Jeddah during the ruling of Ottoman Sultan Murad III, saying that from Makkah Al-Mukarramah to Jeddah takes two days journey. He described Jeddah as a city surrounded by wall and towers on three sides, yet unwalled on the sea front. He also added that Jeddah had three gates, one on each side and soldiers guard all towers. He further wrote about the waters into the city port and how they are dangerous, being full of rocks and sandbanks in such way, that the ships cannot come near but must perforce anchor at least two miles away. At this port arrive every year forty or fifty great ships laden with spices and other rich merchandise which yield in custom 150,000 ducats (Hakluyt, 1903-1905).

In the seventeenth century, there was a sharp decline in the Portuguese trade due to the adventurous Dutch and English merchants entering the field of action. Jeddah underwent, in consequence, a period of eclipse and the transit of goods through its port was reduced.

During the eighteenth century very little worthy of narration happened, although the following accounts give an idea of Jeddah at that time. James Bruce, a Scottish nobleman came to Jeddah on the 3rd of May 1769 and resided until the 8th of July the same year. Bruce was a British consul in Algiers in 1763 AD; he was interested in the antiquities of North Africa. He returned to Scotland in 1773. A long chapter of his book is dedicated to Jeddah, but his account deals mainly with his personal experiences with some of the people. He says that Jeddah it was very unwholesome, as was, indeed, all the East Coast of the Red Sea. Immediately outside the gate, to the Eastward, was a desert plain, filled with the huts of the Bedouins or country Arabs, built of long bundles of spartium, or bent grass. These Bedouins supplied Jeddah with milk and butter. Bruce observed that the trade with India, which was great, did little good to the town, as the customs were all immediately sent to the greedy Sovereign and his demanding dependants at Makkah Al-Mukarramah. All the profit of the traffic therefore rested in the hands of strangers, who, as soon as any deal was concluded, left to Yemen and other neighbouring countries (Bruce, 1813).

Thirty-eight years later Ali Bey described Jeddah in a book published in 1816. He wrote that Jeddah was a pretty town of regular streets. The houses were fine, built of stone, generally two to three stories high, but were not very solid. They all had a great number of windows and flat roofs. There were five mosques, which were all poor and ugly. The town was surrounded by a good wall, which had irregular towers. At ten paces distance from the outside of the wall lay a ditch, which was entirely useless, as it was not flanked by any

earthwork. It was filled in with dirt at the city gate, to serve as a causeway instead of a drawbridge, and, although of recent construction, would not last very long, its sides being cut perpendicularly and without any lining. The ditch was about ten feet broad and twelve deep (Bey, 1816).

Bey observed that the public markets were well supplied, but the prices were high. The vegetables were brought in from a distance, for there were no gardens at Jeddah because of a lack of any river or spring. He says that the merchants at Jeddah, or rather, the merchants of Makkah Al-Mukarramah bought at Makkah Al-Mukarramah, cargoes to be sold there and Cairene merchants sent money to Jeddah, to make purchases through the medium of the commissioners at Suez. There was a great deal of luxury in the costume and apartments of the rich; but among the lower orders there were many poor, some almost naked and in the greatest misery. He then added that there were no Europeans at Jeddah but there were a few Christians, confined to a house or barrack connected to the docking place (Bey, 1816).

Bey continues to tell that there were few flies, and no gnat, or other insects. As there were no coal deposits at Jeddah, the only fuel was wood, brought in from a great distance, or from the remains of old buildings. Flour was obtained from Africa. There were about a hundred coasting vessels that traded from here to Suez, and the same number which went to and from Makkah Al-Mukarramah, but many lay under general repair. A year never passed without several being lost upon the rocks in the Red Sea but there were always some being built at Suez, Jeddah, or Makkah Al-Mukarramah. These people were once much richer but the war with the Wehhabites had impoverished them because they had passed their nights and days during many years under arms. To this cause may also be added war in Europe, which had paralysed the commerce of the East and the revolutions in Egypt, Arabia,

Barbary, and also their own country, and which had prevented or rendered difficult the pilgrimage of persons from the West. All those causes powerfully influenced happiness and riches of the people of Jeddah. It therefore came to be without a wall upon the land side, and composed of a number of houses, inhabited by very poor people (Bey, 1816).

Bey also described Jeddah's climate as an inconstant. He observed the hygrometer to pass from great drought to extreme moisture in a short space of time. The north wind, traversing the deserts of Arabia, arrives in such a state of dryness that the skin was parched: paper cracked as if it was in the mouth of an oven; and the air was always loaded with sand. If the wind changed to the south, everything is in an opposite extreme: the air was damp; and everything that one handled felt clammy and wet. This moisture relaxed the animal fibres, and was very disagreeable. Notwithstanding, the inhabitants asserted that it was more salubrious than the aridity of the north wind (Bey, 1816).

In 1814 AD Johann Burckhardt, a Swiss traveller, visited Jeddah ('Djidda') and gave a detailed description of the town in his book *Travels in Arabia* "The town is built upon a slightly rising ground, the lowest side of which is washed by sea. Along the shore it extends in its greatest length for about fifteen hundred paces, while the breadth is no more than half that space. It is surrounded on the land side by a wall... A narrow ditch was also carried along its whole extent, to increase the means of defence; and thus Djidda enjoys, in Arabia, the reputation of being an impregnable fortress. On the sea-shore, in front of the town, the ancient wall remains, but in state of decay" (Burckhardt, 1829, pp1 and 2).

After that he described the town and its houses "The interior of Djidda is divided into different districts" (Burckhardt, 1829, p9).

"The most respectable inhabitants have their quarters near the sea, where a long street, running parallel to the shore, appears lined with shops, and affords many Khans [inns] constantly and exclusively frequented by merchants. Djidda is well built; indeed, better than any Turkish town of equal size that I had hitherto seen. The streets are unpaved, but spacious and airy... Almost every house has two storeys, with many small windows and wooden shutters. Some have bay-windows, which exhibit a great display of joiners' or carpenters' work (Burckhardt, 1829, p13).

"There is, generally a spacious hall at the entrance, where strangers are received, and which, during the heat of the day, is cooler than any other part of the house, as its floor is kept almost constantly wet. The distribution of rooms is nearly the same as in the houses of Egypt and Syria; with this difference, however, that in Djidda there are not so many large and lofty apartments as in those countries, where but few houses, at least of the natives, have two stories, whilst the rooms on the ground-floor are sometimes of a considerable height" (Burckhardt, 1829, p38).

He also noted "Uniformity in architecture is not observed at Djidda.... Some houses are built with small, others with large square stones, the smooth side outwards, and the interior filled up with mud. Sometimes the walls are entirely of stone; many have, at intervals of about three feet, thin layers of planks placed in the wall, and these, the Arabs imagine, tend to increase its strength. When the walls are plastered, the wood is left in its natural colour, which gives to the whole a gay and pleasing appearance, as if the building had been

ornamented with so many bands... No buildings of ancient date are observed in Djidda, the madrepore [a white coral material] being of such a nature that it rapidly decays when exposed to the rain and moist atmosphere prevalent here" (Burckhardt, 1829, pp38-39).

Burckhardt suggests that Jeddah derived its wealth not only from being the port for Makkah Al-Mukarramah, but also because it could be considered the port of Egypt, India and of Arabia, where all the exports destined for Egypt pass first through the hands of the Jeddah merchants. Hence he adds "It is probably richer than any town of the same size in Turkish dominions" (Burckhardt, 1829, p52).

In the first half of the eighteenth century, new development in central Arabia began to take place and a reforming religious movement based on the Sunni theological system began to spread. Imam Mohammed Ibn Abd-Alwahhab joined the strong family of Saud in Najd and spread the movement's influence all over Arabia. They tried to control Jeddah but failed, although they managed to control most of the Hijaz region in 1805. Mohammed Ali of Egypt managed in 1812 to re-establish Ottoman sovereignty.

During the first half of the nineteenth century European power became increasingly interested in the Hijaz. This period witness the establishment of a British and a French consulate in Jeddah.

The opening of the Suez Canal in 1869 augmented Jeddah's commercial position. The Red Sea, instead of being a side-road for maritime commerce, became the highway to the East. Consequently, Jeddah became a thriving centre of mercantile activity. By the turn of the

century, the wealthy merchants of Jeddah were handling a regular volume of commerce with other Arabian ports, India, Egypt, Africa, and Europe. In addition, the Suez Canal strengthened Ottoman control on the Hijaz.

The outbreak of World War I compelled the British to assist the Hashemite Sharif of Makkah Al-Mukarramah, Hussein Ibn Ali, who had become disturbed by the intolerably increased Turkish control over the Hijaz. Sharif Hussein proclaimed his independence from the Turks and, assisted by the British, attacked Jeddah in June 1916. After one week of the attack the Turks surrendered the town in June 17th 1916, ending the, Ottoman domination of the Jeddah which had lasted for four centuries (Bokhari, 1978).

At the same time in central Arabia, Abdul-Aziz Bin Saud established control over Najd and Al-Hasa by 1915. During this time, T.E Lawrence 'Lawrence of Arabia' visited Jeddah and wrote about the town in his widely read book *Seven Pillars of Wisdom*: "But when at last we anchored in the outer harbour, off the white town hung between the blazing sky and its reflection in the mirage which swept and rolled over the wide lagoon, then the heat of Arabia came out like a drawn sword and struck us speechless" (Lawrence, 1965, p 65).

"The streets were alleys, wood roofed in the main bazaar, but elsewhere open to the sky in the little gap between the tops of the lofty white-walled houses. These were built four or five stories high, the coral rag tied with square beams and decorated by wide bow windows running from ground to floor in grey wooden panels. There was no glass in Jidda, but a profusion of good lattices, and some very delicate shallow chiselling on the panels of the window casings…House-fronts were fretted, pierced and pargeted until they looked as though cut out of cardboard for a romantic stage-setting" (Lawrence, 1965, pp 65 and72).

A number of interesting points can be deduced from Lawrence's account. First, the houses he observed were lofty - four to five stories high - while Burckhardt had noted a century before that almost every house was two storeys high. This indicates the splendid development of houses in the late part of the nineteenth and early twentieth centuries. Secondly, the overall character of the town seemed to have changed but little since Burckhardt saw it. It still gave the impression of being well built. The houses were white-washed, and the facades almost covered with a patchwork of timber compounded of projecting bay windows, screens and shutters. And finally Lawrence, unlike Burckhardt who noted that the streets were spacious, pointed out that the streets were alleys.

Thus one is led to assume that Burckhardt was impressed by the major arteries, running parallel and perpendicular to the sea, and therefore described them as spacious and airy, while Lawrence was referring in his account to the close, relatively irregular texture of the residential streets, which were narrow unlike the major arteries and which Burkhart had perhaps not explored so deeply.

7.3.5 Kingdom of Saudi Arabia (20th century)

In the beginning of 1925, Abdul-Aziz Ibn Saud's army surrounded the town of Jeddah, which was protected by strong walls and fortifications. The siege of Jeddah lasted for almost a year. In December 23, 1925, Abdul-Aziz finally entered Jeddah and proclaimed himself 'King of Hijaz, Sultan of Najd and its Dependencies'. It was only in September 1932 that the country was named Kingdom of Saudi Arabia, with Abdul-Aziz Ibn-Saud as its first King.

Immediately after World War II, Jeddah witnessed a commercial and financial boom, aided by the substantially increasing number of pilgrims arriving at its port as well as by the large oil revenues. The town's rapid expansion and physical growth required the demolition of the walls in 1947.

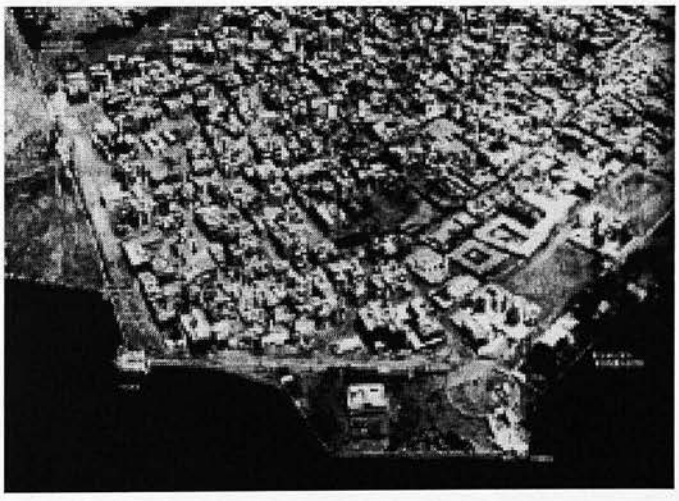


Figure 7.5: Jeddah in 1940, 7 years before the demolition of the city wall
Source: Pesce, 1977, p112.

7.4 Traditional Town

The author suggests that a study of the identity of the traditional town of Jeddah requires first of all an analysis into the overall form of the town, its role within the traditional society and its specific morphology. This section starts by giving a brief analytical study of the town's socio-spatial structure.

The discussion of the traditional town's identity will focuses mainly on the period from the eighteenth century until the mid twentieth century, when the city wall was removed. This represents the period during which most of the existing urban, architectural and social traditions were developed.

7.4.1 Traditional Social Structure

Due to Jeddah's function as a gateway to Makkah Al-Mukarramah and as a commercial centre for the Western Region of the Arabian Peninsula, its inhabitants have been in constant contact with different nationalities from almost all over the world. These have included Turks, Persians, Yemenis, Hadramis, Bukharis, Indians etc. Some of those foreigners originally came to perform Hajj, settled in the town and became permanent residents. The local people adopted some customs, norms and habits of these different nationalities. Over time the absorption of these external influences, coupled with strong local customs, gave its inhabitants their distinctive identity. Burckhardt wrote that the inhabitants of Jeddah, like those of Makkah Al-Mukarramah and Al-Madenah Al-Munawarah, were almost exclusively foreigners or the descendants of foreigners who had settled earlier in the city. These were particularly from Hadramout and Yemen. He found that there were in Jeddah settlers from India, Malaya, Egypt, Syria, Barbary, European Turkey and Anatolia, who were all naturalised, mixed in one mass and lived and dressed in

the same 'Arab' manner (Burckhardt, 1829).

The Islamic faith had a very strong influence on the formation of the law, arts, ethical values and the spiritual ideas of the inhabitants of Jeddah, as with most of Muslims cities all over the world at that time. All religions including Islam are understood to be cultural system (Bokhari, 1978).

A large part of the people in the traditional Jeddah worked in the field of trading; each specialising in one or more goods. The sea was also considered as a source of income for many families as most inhabitants made their livelihood from sea sea-related activities such as fishing, shipbuilding etc. For centuries Jeddah was considered as one of the pilgrim cities in addition to Makkah Al-Mukarramah and Al-Madenah Al-Munawarah. Many facilities had to be provided for the pilgrims, such as services, accommodation etc. Therefore the earnings of many families depended on this provision. Other people worked in various other fields such as building construction, services and local industries (Al-Ansari, 1980).

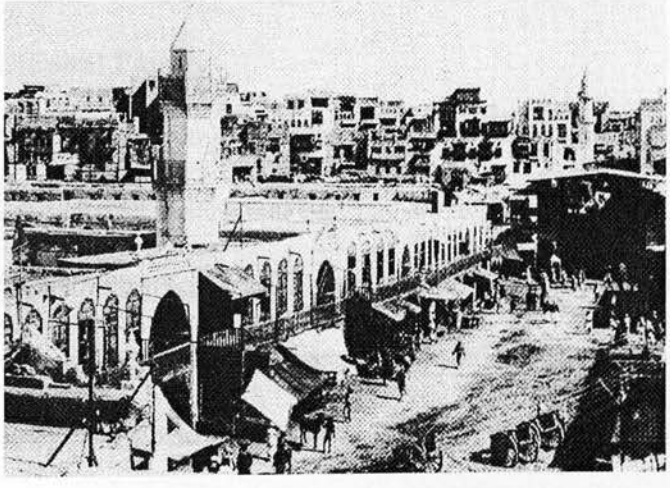


Figure 7.6: Jeddah commercial heart in 1920
Source: Stacey International, 1980, p11.

Different classes of people populated the old town. There were high-class people (merchants), middle class people (usually government employees and religious scholars) and ordinary people. They all lived together as one community (Al-Ansari, 1980).

Jeddah traditional social structure can be simplified into three main circles: the first one is the family as the main core of the social structure; the second circle represents the community; and the third refers to the society as a whole (see figure 7.7).

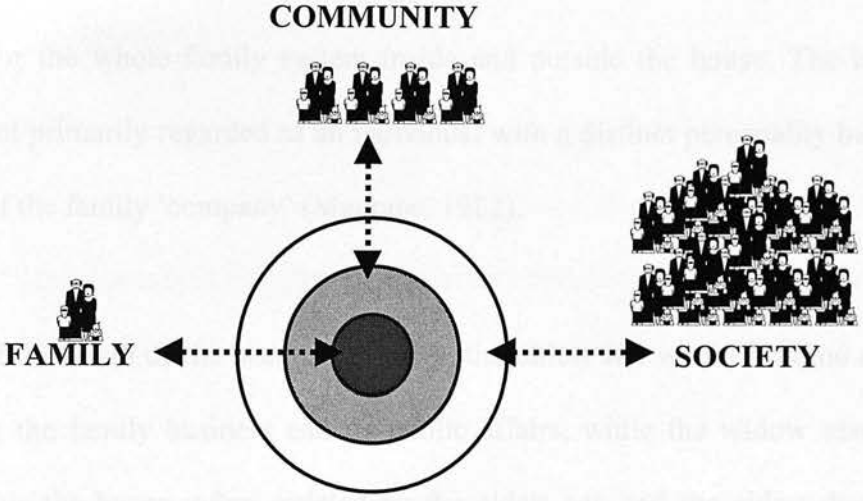


Figure 7.7: Jeddah's Traditional Social Structure.
Source: The author

7.4.1.1 The Traditional Family

The family was the primary and basic unit of the social structure of traditional Jeddah society. The inhabitants of traditional Jeddah existed in extended families composed of several related nuclear families with strong ties among the family members. All family members' parents, uncles, aunts, spouses and decedents lived in the same house. This provided the basic agency for mutual aid and protection, the teaching of Islam to the young, the management of private property, the marking of the major life events of birth, marriage and death and the regulation of social intercourse in the society.

Family life circled around Islamic religious teaching, which urged loyalty and ties among family members. The need to co-operate and co-ordinate their activities in the interest of the domestic unit; and their concern to maintain the good name and honour of the family in the eyes of the society brought all family members together, thus keeping the family integral and preventing the rise of disagreement. Indeed, this was one of the main characteristics of the traditional family of Jeddah (Bokhari, 1978).

The patriarchal head of the family was another characteristic of the traditional family, responsible for the whole family system inside and outside the house. The head of the family was not primarily regarded as an individual with a distinct personality but a symbol of the unity of the family 'company' (Magrabe, 1982).

In the case of the death of the head of a family, the oldest son would become responsible for managing the family business and its public affairs, while the widow assumed final authority inside the house, often assisted by the eldest son and the eldest daughter. The strong ties among the family members have been always respected and cherished even after the death of the family head (ibid.).

Thus, cohesion of society and a sense of belonging originated in the primary social unit, the extended family. But Islamic culture does not restrict strong ties and good relations solely to the immediate family; it also encourages good relations with neighbours.

7.4.1.2 Traditional Community

A large number of family-houses formed a residential neighbourhood (*Harah*) of the traditional town. There was, however, no clear physical separation between the neighbourhoods in the traditional town. The division of the town into neighbourhoods merely served the purpose of easier administration and way-finding within the town. Each neighbourhood had its own leader (*Omdah*) who administered its internal affairs by public consensus.

Because the residential neighbourhoods were composed of extended-family houses, privacy and security were highly respected. In these neighbourhoods, families, women and children were looked after and protected by all men living in each neighbourhood. Strangers were not prevented from passing through a residential neighbourhood, but they were not permitted to stroll through or loiter in such an area.

Within the neighbourhood there were areas of predominantly high-class people as mentioned earlier, these generally being near the town centre. Nevertheless the people helped each other; for example, the rich inhabitants endowed many facilities such as schools, mosques and houses for the poor and elderly. Thus all residential neighbourhoods experienced a tangible community feeling that formed a unit larger than the traditional extended family so characteristic of the social structure of the inhabitants of the old town. No matter what the class of people, the old and young men gathered after dusk in the outdoor spaces in front of the houses where passive recreation (recitation from the Quran and *Hadith* i.e. the traditions of the Prophet, drinking tea and coffee, playing cards etc.) took place. Staying inside the houses or the *gahawy* (coffee shops) until late into the night, was also one of social customs of old and young adult men. On the other hand the children

had their own social customs, with their own spaces to play in. These activities were carried out with great respect for neighbours' privacy. In other words, the privacy of other people was taken into consideration in the performance of these activities, whether outside or inside the house (Z. Al-Lyaly, 1990).

7.4.1.3 Traditional Society

Jeddah's traditional society represented an Islamic Arab society in all its characteristics. The various residential neighbourhoods of the traditional town represent parts of a still larger family: the city as a whole, organised and administered according to the Islamic law. The acceptance of the Islamic law into such a heterogeneous cosmopolitan society as that of Jeddah was an effective vital step towards establishing an overall social unity in the town. Thus, like other Islamic cities, Jeddah's cultural traditions evolved mainly from Islam. The town's mixed population, with large components of non-Arab Muslims, had nonetheless adopted Arabic as its common language. By sharing a common religion and language the non-indigenous population was integrated harmoniously and without social discord. Social segregation was not practised in Jeddah's urban society. Ethnic grouping was more social than physical in the strong communal bonds that existed among the members of each ethnic group in that they did not necessarily live in close proximity to one another. In addition, there was a relative absence of spatial grouping by social status (Bokhari, 1978).

Economic, religious and social lives were not so differentiated from each other as to create the basis for any radical separation of social classes by neighbourhood. Each neighbourhood can be seen as a microcosm, where all classes lived together as neighbours. Certain neighbourhoods, however, were favoured by the wealthy because of their celebrity

or proximity to the *Suq* (market place), and this gave them a somewhat 'upper class' character.

The small size of traditional Jeddah and its neighbourhoods helped in creating a great sense of intimacy among the families, so that no family lived too far away to be frequently visited by other families at any time of the day.

Also of great importance were the ritualistic and symbolic social gestures of sympathy among the families of any residential neighbourhood, or even among the various neighbourhoods. Any celebrations of happiness in one house (such as at a wedding, birth etc.) as well as its crises (death, sickness etc.) were collectively shared by the houses of the various neighbourhoods. During festivities it was quite natural for the various families to exchange presents and home-cooked food.

7.4.2 Urban Structure and Traditional Architecture

The town of Jeddah has been described in general terms by various early travellers. One of the first detailed plans for Jeddah was drawn in 1762 by Carsten Niebuhr. He was employed by the Danish Government to explore the most fertile part of Arabia. The task of Niebuhr was to act as a surveyor, drawing maps of the area and recording distances (see figure 7.8) (Pesce, 1977).

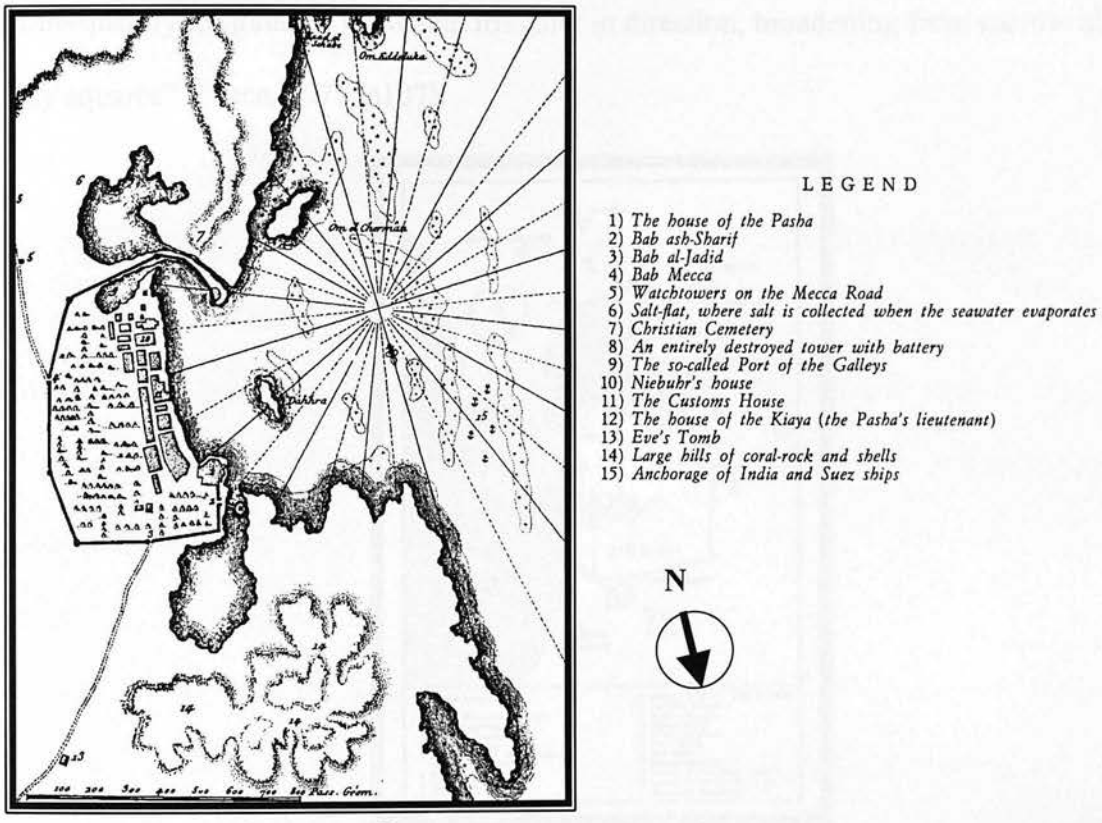


Figure 7.8: Plan of Jeddah in 1762
Source: Pesce, 1977, p105.

In 1938 AD C.A. Nallino drew a plan for the town, his plan being almost similar to Niebuhr's. According to it, the town shape was an irregular hexagon (see figure 7.9). Entrances to the town were through four gates opened on each side: Al-Madenah Al-Munawarah Gate to the North side of the wall (see figure 7.10); Makkah Al-Mukarramah Gate to the East; Al-Sharif Gate to the South (see figure 7.11); and to the sea there was Al-

Bunt Gate incorporated in the customs building and opening towards the market. "To the east of Al-Madenah Al-Munawarah Gate and adjacent to it was another related new gate called Bab Jadid (New Gate) this gate was added for the advantage of the car at the beginning of the twentieth century, to permit the transit of motor vehicles. Cars leaving or entering the town could pass only through this new gate" (Bokhari, 1978, p160). "Buildings inside the wall were closely packed without any particular arrangement, the streets were consequently irregular in width and irregular in direction, broadening from narrow alleys to tiny squares" (Pesce, 1977, p107).

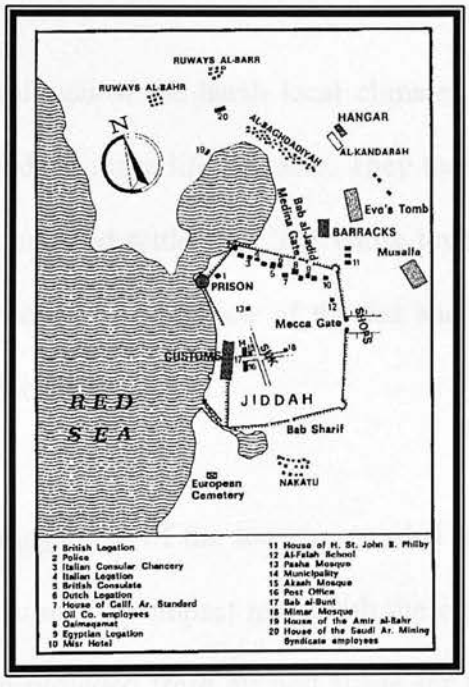


Figure 7.9: Plan of Jeddah in 1938
Source: Nallino, 1939, p305.

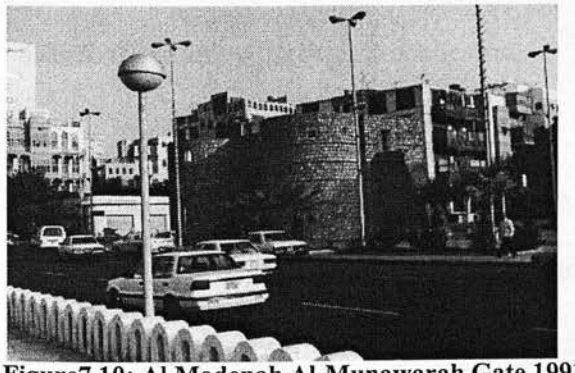


Figure7.10: Al Madenah Al-Munawarah Gate 1991.
Source: The author

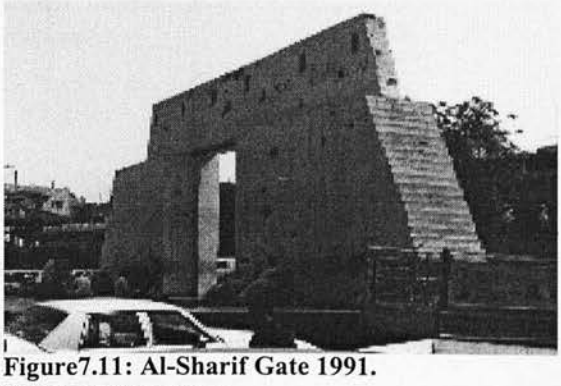


Figure7.11: Al-Sharif Gate 1991.
Source: The author

7.4.2.1 Urban Form

The only difference is that Jeddah centres around the *Suq*, unlike other Islamic towns, which are centred around a governmental or religious institution. "The lack of a governmental institution might be attributed to the fact that Jeddah's origin and subsequent wealth was closely related to its proximity to the Holy City of Makkah Al-Mukarramah: it acted primarily as Makkah Al-Mukarramah's treasury and trading outlet. The proximity to Makkah Al-Mukarramah was also the probable reason for the lack of a grand Mosque" (Z. Al-Lyaly, 1990, p31).

Jeddah struggled for survival against the harsh local climate. The inhabitants developed various technique and methods to make life bearable. They took full advantage of the sea, "making Jeddah a truly sea oriented settlement. The entire town was oriented towards the West and the North, the benefit from the view of the sea and the cool breeze coming in from both directions" (Bokhari, 1978, p157).

In addition, the internal arrangement of the town responded to the need to adapt to the climate. Thus the old town formed a compact mass with the essential narrow and winding streets for circulation which provided fresh air and shade for the whole city. This direct response to the climate's elementary challenges and human needs imbued the overall pattern of Jeddah with organic cohesion.

Traditional Jeddah was an organic entity in the sense that it grew naturally into its locale. Its overall form and diverse components reflected on intricate sensitivity to particulars of place down to the smallest scale, forming a huge variety of patterns. The town and its parts, the footpaths, the squares and the architectural forms, developed slowly and adapted to

accommodate distinct needs thus becoming, in the course of the process, an expression of a special culture. The general form of traditional Jeddah is that of a fishing town located on the seaside. The basic structure of Jeddah was therefore the simple result of its basic parts, which were in direct relationship to the traditional social organisation. The city was based on the Markets, Residential Quarter and the Harbour with a network of pedestrian and traffic routes connecting these major elements (see figure 7.12).

The city activities, commercial and religious, affected the distribution of land use, such that the buildings related to trade or to pilgrims were found near the sea or gates. Generally, there was a hierarchy of levels of well-linked functions, with spaces as well as areas of circulation from the level of the small neighbourhood. However, it was centred around the *Suq*, which contained a wide variety of commercial activities.

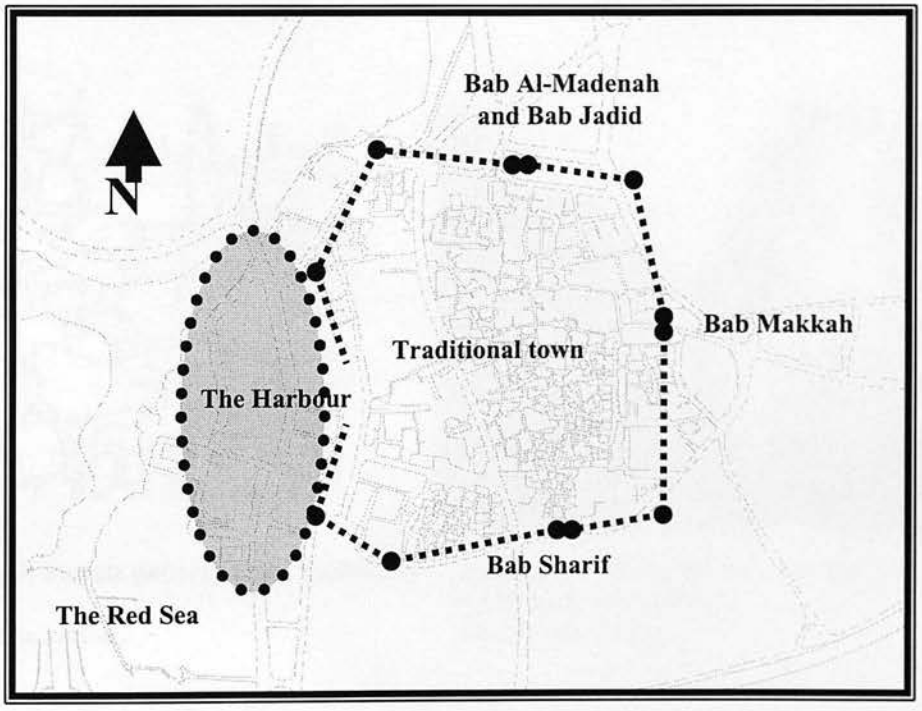


Figure 7.12: The general form of the traditional town and its main elements
Source: The author

7.4.2.2 Street Pattern and Open Spaces

The street pattern of traditional city of Jeddah does not conform to any single geometrical pattern. It developed naturally responding to the climate conditions. The streets' widths vary according to their function and location (see figure 7.13). The internal street in the residential quarter is designed for pedestrians; it can be as narrow as two metres, while other streets in the *suq* for example, reached about fifteen metres.

The narrow winding alleyways provide shade and channel cool air for the pedestrian. They also possess visual interest and arouse expectancy in any person who meanders through these quarters (Z. Al-Lyaly, 1990). The street system in the traditional city demonstrates a gradual transition from the public street of the *suq* though the pedestrian alleyways to the semi-private cul-de-sacs and the privacy of the houses (see figure 7.14).

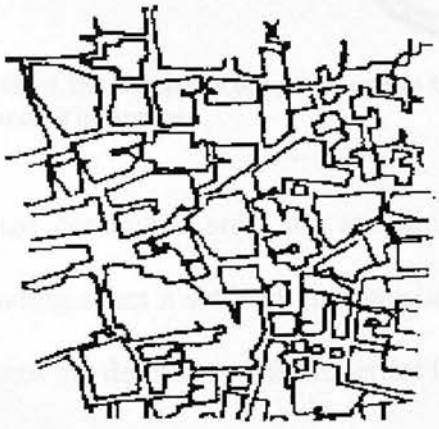


Figure 7.13: Streets pattern in the traditional town.
Source: The author.

Figure 7.14: One of the narrow alleyways in the traditional town, 1991.
Source: The author.

Thus old Jeddah exhibits a recognisable hierarchy of open spaces and, in the residential quarter, the narrow streets can be seen to connect the active public area to secondary public spaces (semi public) then, through narrower walkways, to smaller common (semi private) areas. Thus the communal spaces are distributed in the town so that each of the houses is oriented to at least one such space (see figure 7.15).

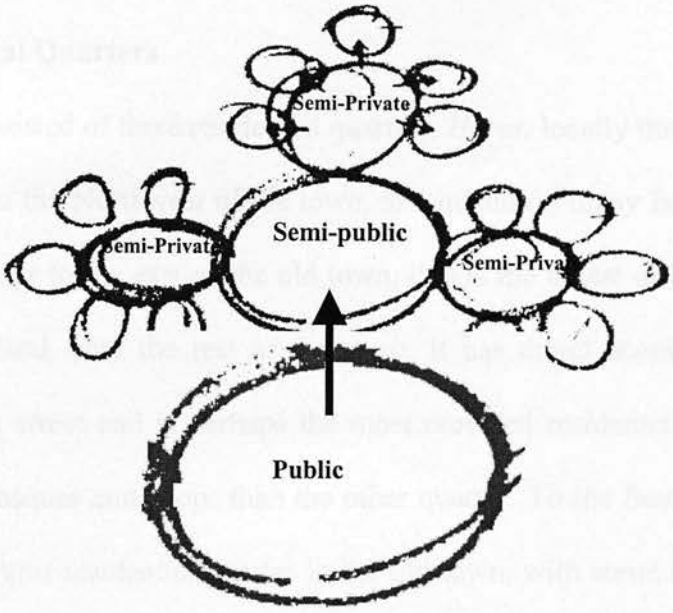


Figure 7.15: Hierarchy of open spaces in traditional city of Jeddah.
Source: The author.

These communal areas are sometimes very small, perhaps no more than a corner of a winding street a set-back in a junction of two alleyways or a niche in a cul-de-sac. These spaces are defined by the properties that adjoin them and nobody can change them. The use of these spaces varies according to their function and size. In the residential quarter most spaces, in the cul-de-sacs in particular, are used by children as secure places where they can play. They also serve as places where men can gather, sit, talk and play games, whilst enjoying the advantage of the micro-climatic conditions of the spaces. These spaces are shaded by the adjacent buildings and by projecting windows (*Rawashin*), as well as being cooled by the circulating air (Al-Harbi, 1989).

The streets and open spaces, as well as buildings, emphasise a human scale and reflect the strong relationship that a home-building person has with the immediate environment. It is also acknowledged that the overall arrangement of spaces in the old town was guided by the Islamic principle of life, so that they were an essential consideration of public and private life.

7.4.2.3 Residential Quarters

The old town consisted of three residential quarters, *Harat*; locally they are called: *Al-Sham* quarter, located to the Northwest of the town, and including many large merchant houses; *Al-Madhlum* quarter to the east of the old town, this is the oldest developed quarter in the town, slightly raised from the rest of the town. It has direct access to the old harbour through one long street and is perhaps the most crowded residential quarter in the town with more old mosques and shops than the other quarter. To the Southwest of the town is *Al-Yemen*, the largest residential quarter in the old town, with some of the most attractive houses. It enjoys a direct access to the waterfront as well as the main old *suq*. In spite of the town's division into quarters, it is difficult to identify the demarcation lines between them. Indeed, socially and physically the entire town had a sense of one large, expansive residential quarter (see figure 7.16).

The quarters consist mainly of family houses, mosques and *zawayyah* (small praying places), around which most of the social activities were centred. Houses, streets and open spaces were integrated together which form the sense of neighbourhood or community and enhance the social life among people. Looking carefully at each quarter one can detect subtle differences, in terms of the architectural features of building as well as the spatial organisation of the quarter (Al-Harbi, 1989).

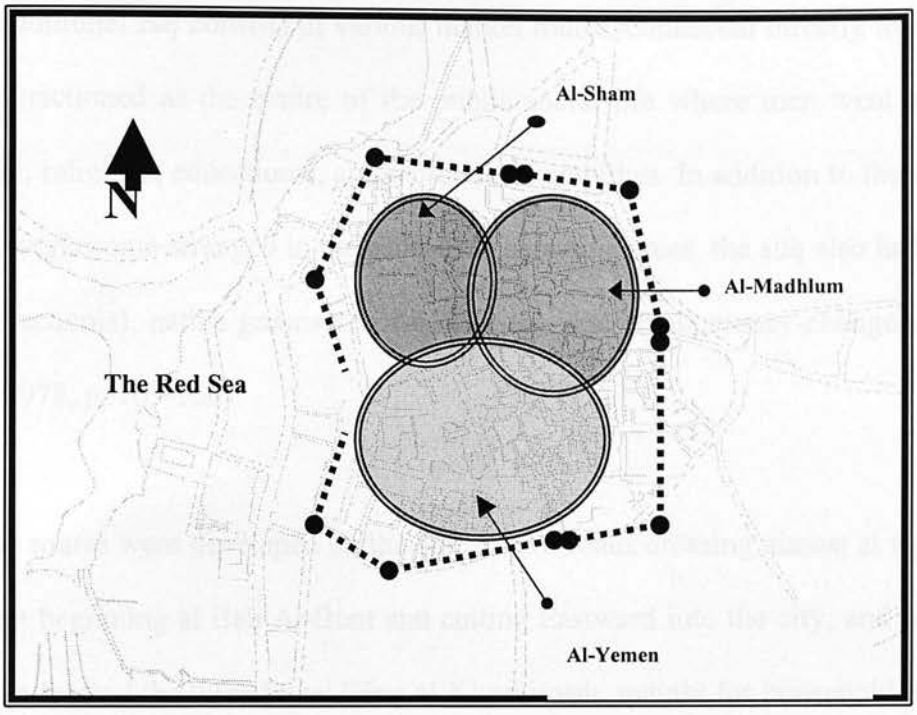


Figure 7.16: Jeddah traditional Quarters.
Source: The author.

Figure 7.17: Aerial view of Al-Sham Quarter 1991.
Source: The author.

4.4.2.4 Market Routes

Jeddah's traditional *suq* consists of various market routes, connected directly to each other. "The suq functioned as the centre of the public social life where men went about their commercial, religious, educational, and recreational activities. In addition to the specialised shops and workrooms arranged in the pedestrian shopping areas, the suq also had mosques, *madrasas* (schools), native *gahawy* (coffee-houses), and small money-changers' booths." (Bokhari, 1978, pp165-166)

The market routes were developed on the side of two roads crossing almost at right angles: Qabil Street beginning at Bab Al-Bunt and cutting Eastward into the city, and Al-Karratin street which formed the three Suqs: "Suq al-Khaskiyyah, mainly for household necessities; Suq Al-Bunt (the harbour market) specialising in money exchange and in selling fish, dates and prayer beads made of Yusr, a species of coral which grows in the Red Sea and has a fine smell; and finally Suq Al-Nada, the main market area with a variety of commodities ranging from fine imported cloth and jewels to foodstuff, bakeries and spices" (Bokhari, 1978, pp165-166).

Along the east side of the town there are other important market routes running from the West to the East: Suq Al-Nuriyyah which specialises in selling vegetables, fruit and meat; Suq Al-Haraj which is used as an auctioneer's; Suq Al-Alawi selling a variety of goods (see figure 7.19) and finally Suq Al-Badu (the Bedouin Market) that sells Bedouin products (see figure 7.20). Most of these markets routes still exist and form a large proportion of Jeddah's business today.

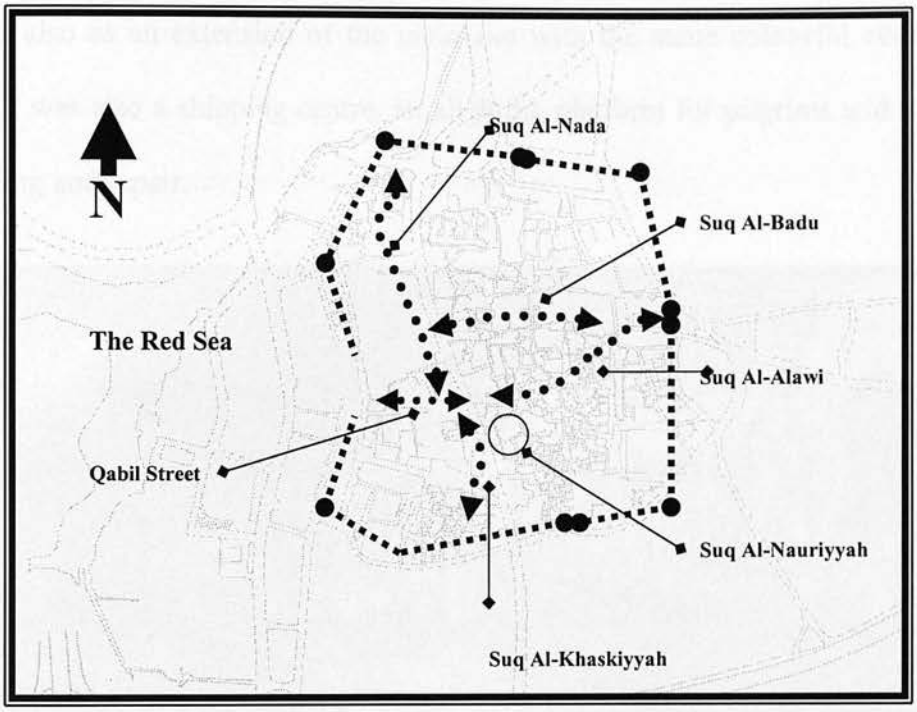


Figure7.18: Market routes in the traditional town.
Source: The author.

Figure7.19: Suq Al-Alawi, 1991.
Source: The author.

Figure 7.20: Suq Al-Badu, 1991.
Source: The author.

7.4.2.5 The Harbour

Functionally, the old town was tied to the activities of the harbour, which was very much evident in its physical structure. The old harbour not only served as a link with the outside world, but also as an extension of the main *suq* with the same colourful atmosphere of business. It was also a shipping centre, an alighting platform for pilgrims and a centre for boat building and repair.

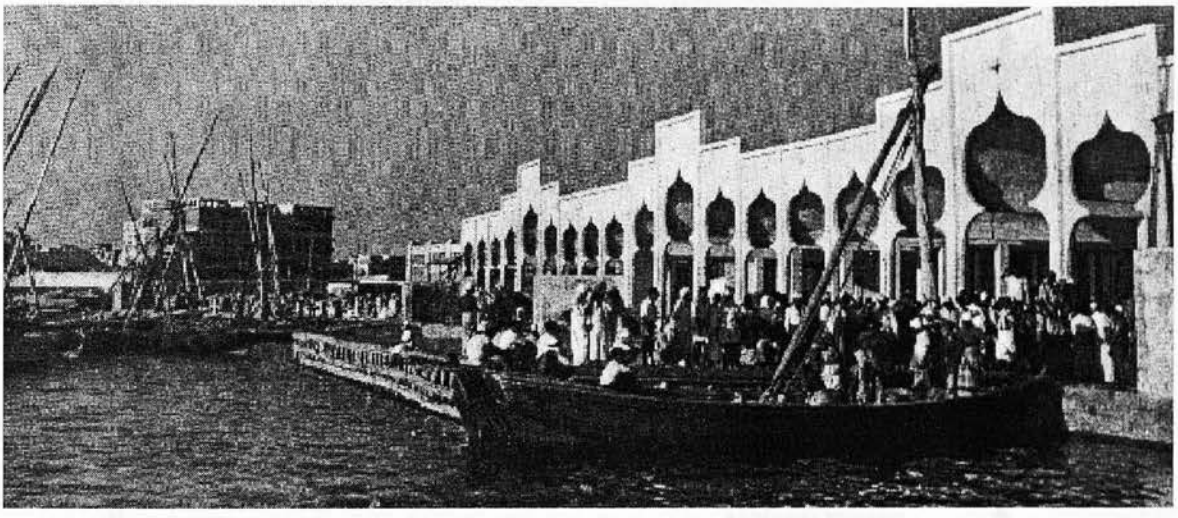


Figure 7.21: Jeddah Port 1950.
Source: Pesce, 1977, p141.

7.4.2.6 Mosques

The mosques' role in the traditional town of Jeddah was similar to their role in all Islamic cities serving as religious, social and cultural centres. Most activities assemble around the mosques. In addition, they provide an important urban, architectural and spiritual element, dominating the skyline of the town, "the soaring minarets of Jeddah mosques were once the most distinctive feature of the city" (Pesce, 1977, p120). The mosques thus worked as landmarks to guide pedestrian movement within the town, and were visible from a long distance out to sea and inland.

Within the traditional town there were five big mosques and thirty small ones, called *zawyah* (Refaat, 1925). The five big mosques Al-Shafi, Al-Hanafi, Al-Memar, Akash and Al-Bashah still exist, as do some of the small mosques *zawayyah* (see figure 7.22). Jeddah's traditional mosques were simple in form and design, free of purely decorational elements.

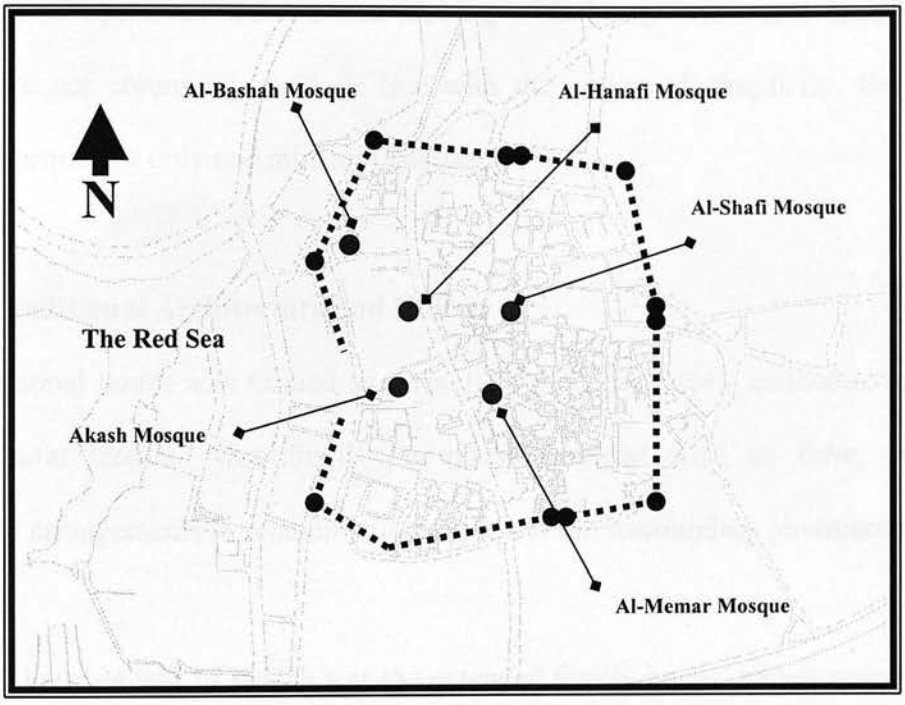


Figure 7.22: Jeddah traditional mosques.
Source: The author.

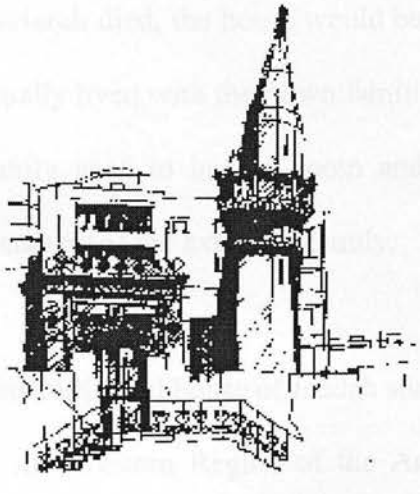


Figure7.23: Al-Bashah Mosque.
Source: Pesce, 1977, P 123.

Figure 7.24: Al-Memar Mosque, 1991.
Source: The author.

Jeddah's traditional mosques are characterised by modest, low exterior elevations and confine their greater elaboration to their interiors. The ground plan usually consists of an open court and a covered hall known as the praying hall. Solid heavy columns support the roof of wood or coral reef stone. The only part of the mosque to display some decoration is *Al-Mihrab* (the niche from where the Imam leads the congregation in prayer). Most traditional mosques are thus inward looking with heavy walls and simple elevations. Domes are not commonly used, in line with the notion of simplicity. Each traditional Jeddah mosque has only one minaret (Bokhari, 1978).

7.4.2.7 Traditional Architecture and Houses

The traditional house was formed as a result of physical forces, economic situations and socio-cultural factors. Accordingly, the house emerged with its form, materials and functional arrangements in relation with people and the surrounding environment.

The main housing unit in Jeddah was the extended family house, which accommodated the parents and their married sons who lived in separate units within the same house. When the patriarch died, the house would be run by his oldest son and shared by the other sons who usually lived with their own families in separate rooms within the larger house. Each single family used to have a room and shared the kitchen and the bathroom with the other members of the extended family.

The traditional house of Jeddah shared many architectural features with those of other cities in the Western Region of the Arabian Peninsula such as Makkah Al-Mukarramah, Al-Madenah Al-Munawarah, Taif and Yanbu. The geographical location, social life and climatic conditions played a major role in shaping the house form in the traditional town.

Thus climatic conditions and strong traditions, usually based on religious requirements, dictated the arrangement of the interior spaces as well as their relationship to exterior spaces. Houses within the old town are a combination of different styles and sizes; nevertheless they share similar characteristics.

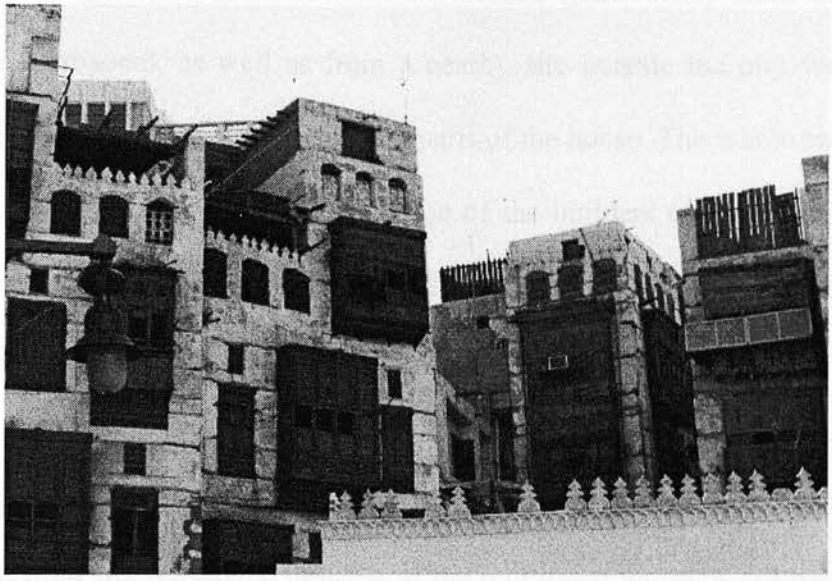


Figure 7.25: Traditional family houses, 1991.
Source: The author.

The traditional houses were constructed of local building materials, except for wood, which was imported. Coral stone (*Hajar Mangaby*) was the main building material. It was used for the construction of the walls, partitions and foundations. It was found in large quantities, near the old town called *Al-Mangabah* where a specialised labour force cut the coral stone into pieces and shapes as required (see figure 7.26).

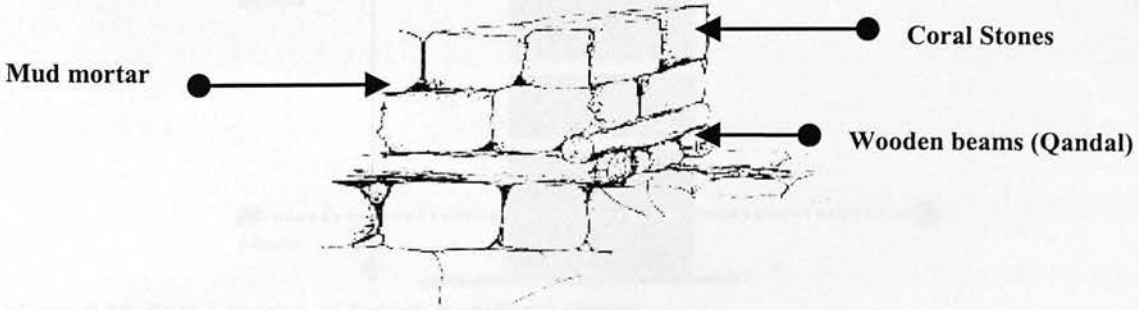


Figure 7.26: Traditional building materials.
Source: Greenlaw, 1976, p90.

Wood imported mainly from India and Java was the second main building material. Skilled carpenters shaped this wood into different forms according to the needs; it was used for doors, windows and decoration as well as structural elements such as beams wall tiesand lintels. Palm trunks were also used as beams. Gypsum and Lime were used to plaster the walls and ceilings. Mud obtained from the seabed (particularly from the lagoon called (Bohyrat Al-Arbaeen), as well as from a nearby site outside the city wall, was used by builders as a mortar or for plastering some parts of the house. The whole construction of the traditional houses was under the supervision of the builders (*Muallemeen*) who drew the foundation plan directly on the ground as well as the location of the walls, rooms, stairs, etc (Bokhari, 1978).

(A) The Interior of the House

The organisation and the spatial division of the traditional house in Jeddah are more or less similar to that of the Islamic house. It reflects the major social segregation of the *Salamlik* (the domain of the men and guests), from the *Haramlik* (the domain of the women and the private family sanctuary (Al-Harbi, 1989).

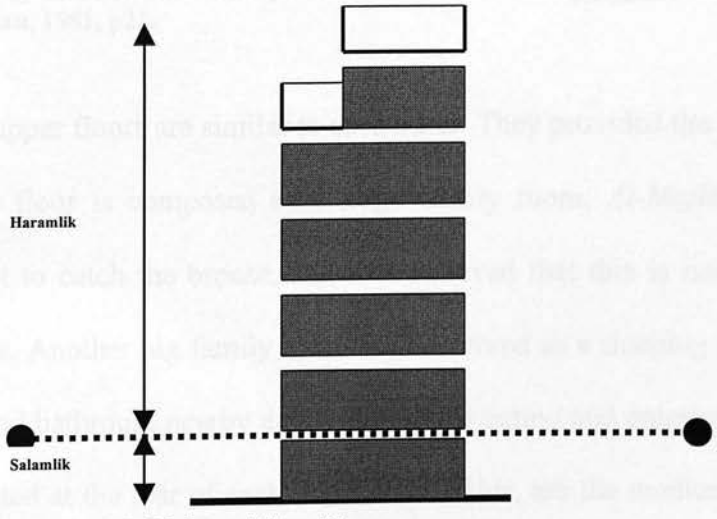


Figure 7.27: Social division of Jeddah traditional houses.
Source: The author.

Generally, the traditional plan of the ground floor is composed of the main entrance hall, which called *Dahlias*. People in the traditional town were usually gathered in semi-private spaces outside the house entrance, in a place called *Dakah*, which was elevated a few steps from the ground level. These spaces were mostly integrated with the interior spaces of the houses. On either or both sides of the entrance hall facing the street are, the office of the head of the family and a reception room for the male guests *Al-Maqad*. The ground floor also includes at the back of the house some small rooms, which used for many purposes such as guestroom. On the ground floor there were also service areas including a bathroom, a space for making tea and coffee, storage cupboards and sometimes servants' rooms (see figure 7.28).

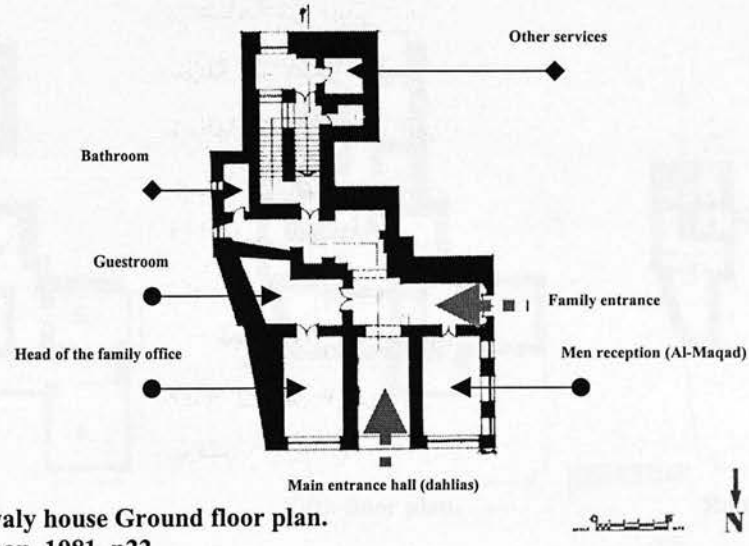
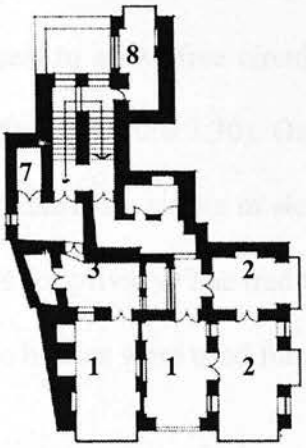
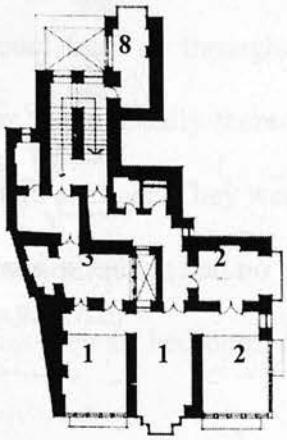


Figure 7.28: Nourwaly house Ground floor plan.
Source: Source: Khan, 1981, p22.

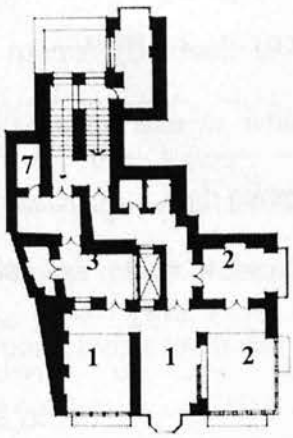
The plans of the upper floors are similar to each other. They provided the living quarters for the family. Each floor is composed of a large family room, *Al-Majlis*, usually located towards the street to catch the breeze, and it is believed that this is normally the coolest room in the house. Another big family room *Suffah* served as a sleeping room. It often had a small kitchen and bathroom nearby and was used for eating and entertaining the guests of the women. Located at the rear of each floor *Al-Muakhir*, are the medium-sized living and family rooms, kitchen and bathroom (see figure 7.29) (Magrabe, 1982).



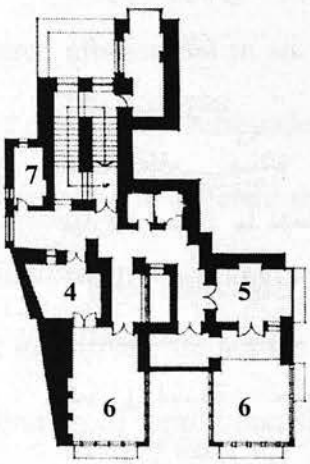
First floor plan.



Second floor plan.

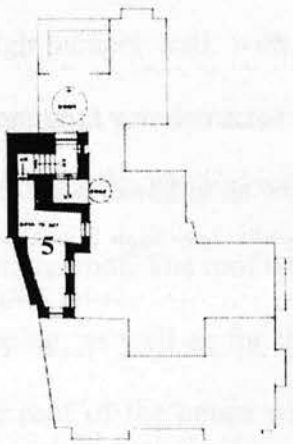


Third floor plan.



Fourth floor plan.

Fifth floor plan.



Roof plan.

1. Women reception (Al-Majlis)
2. Family room (Al-Suffah)
3. Family Section (Al-Muakhir)
4. Kitchen (Al-Mirakkab)
5. Night room (Al-Mabit)
6. Terrace (Al-Kharja)
7. Bathroom
8. Store

Figure 7.29: Nourwaly house upper floor plans.
Source: Khan, 1981, pp23-28.

"A minimum ceiling height of about four metres was common in Jeddah's traditional houses, to allow free circulation of cool fresh air throughout the rooms" (Bokhari, 1978, p185) (see figure 7.30). On the upper floors usually there were a terraces, *Kharja*, which were used as a sitting or sleeping area in summer. They were surrounded with high parapet walls for privacy. The traditional houses of Jeddah had no single-purpose rooms. Rooms in these houses were used for all purposes such as, bedroom, dining room, living room and so on.

The roof was considered to be one of the most important parts of the house. It played a significant social role and was where the members of the family, especially women, gathered after sunset in an elevated and private open space. A high parapet wall, with a series of openings surrounded the roofs. These openings were covered with wooden screens and decorated in different shapes, in such a way that air movement was allowed in as well as the freedom to look out without disturbing the privacy of those on the roof. The roof was used extensively during the summer nights for gathering and sleeping, as well as for the celebration of family occasions such as weddings, births etc. The roof of the house was usually equipped by a room called *Al-Mabit* a sleeping room, in addition to a small bathroom.

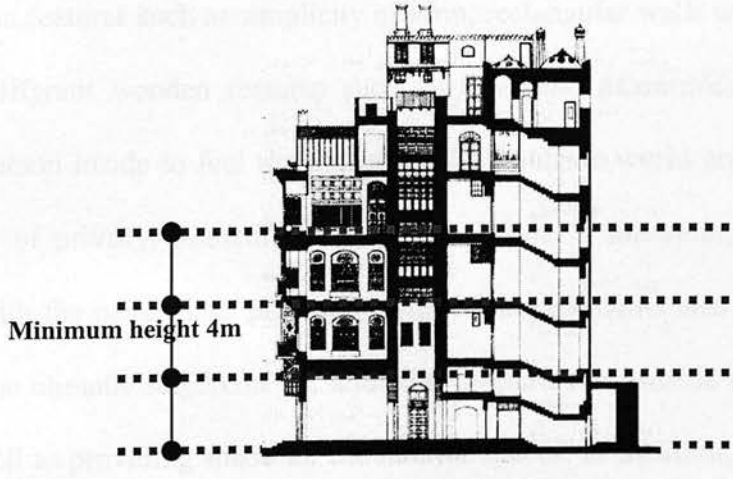


Figure 7.30: Nourwaly house, Section through the building
Source: Khan, 1981, p29.

The relationship between spaces in Jeddah traditional houses is predominantly vertical due to the limited space within the wall of the city which forced people to extended their houses upward in order to accommodate their growing families and to benefit from the sea breeze (see figure 7.31).

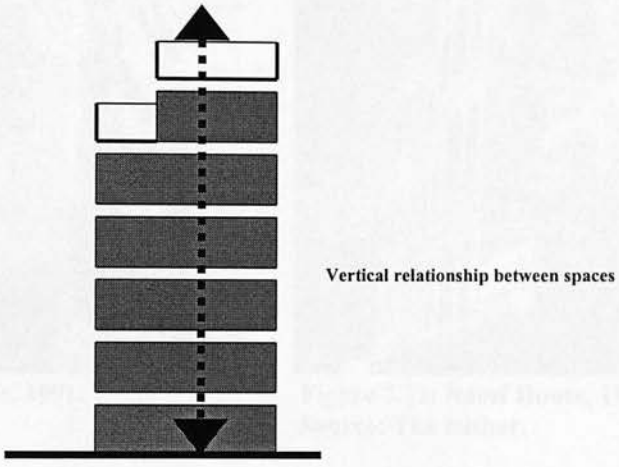


Figure 7.31: Relationship between spaces in traditional buildings.
Source: The author.

(B) The Exterior of the House

Jeddah traditional houses are characterised by their wooden elements, doors, windows and bay windows *Rawshan* (see figures 7.32 and 7.33). The facades of the traditional houses share common features such as simplicity of form, rectangular walls with various openings, which use different wooden features such as *Rawshan*, *Mashrabiah* and *Shish*, which allows the person inside to feel in contact with the outside world and yet maintained the desired level of privacy, Sometimes the person behind a *Rawshan*, at the ground level might talk with the pedestrians passing outside. These elements also provide an excellent solution to the climatic requirements, allowing people sitting inside to enjoy the cool sea breeze, as well as providing shade for the interior spaces. In addition, they emphasised the richness of the façades of these houses.

Figure 7.32: Al-Shafi House, 1991.
Source: The author.

Figure 7.33: Nasef House, 1991.
Source: The author.

In older houses, the emphasis is given to the windows, whether flat or projected. A window should provide adequate ventilation, reduce the bright glare of the sun and maintain the necessary privacy for the occupants. The *Rawshan* (singular of *Rawashin*) is one of the most distinguished external features of the traditional houses of Jeddah. It is the focal point of life within the room. In some houses the *Rawashin* were continuous from the ground floor to the top floors (see figure 7.32). They were used singly, stacked vertically or arrayed horizontally according to the needs of the house (see figure 7.34). According to the owner's means and taste they display a large variety in quality, size, treatment and arrangement on the façade, so that it is hard to find two identical *Rawashin* in the traditional houses of Jeddah (see figure 7.35). The typical *Rawshan* was raised about 60cm or more above the room floor level and provided an extension of the inner space, which the residents could use as a sitting or sleeping space.

Among the main exterior features of the traditional house are the distinctive entrances. These entrances were made of teak boards. Most, if not all, of the doors were hand-carved (Bokhari, 1978) (see figure 7.37).

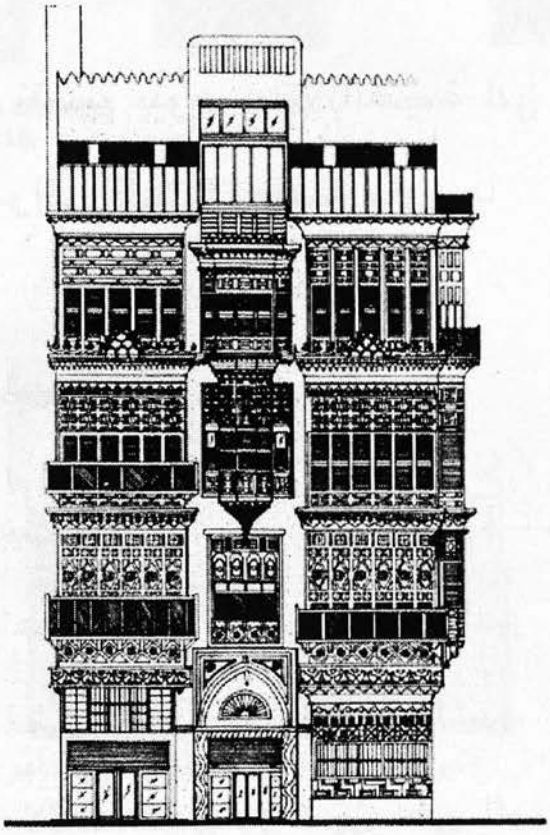


Figure 7.34: The elevation of Nourwaly house.
Source: Khan, 1981, 930.

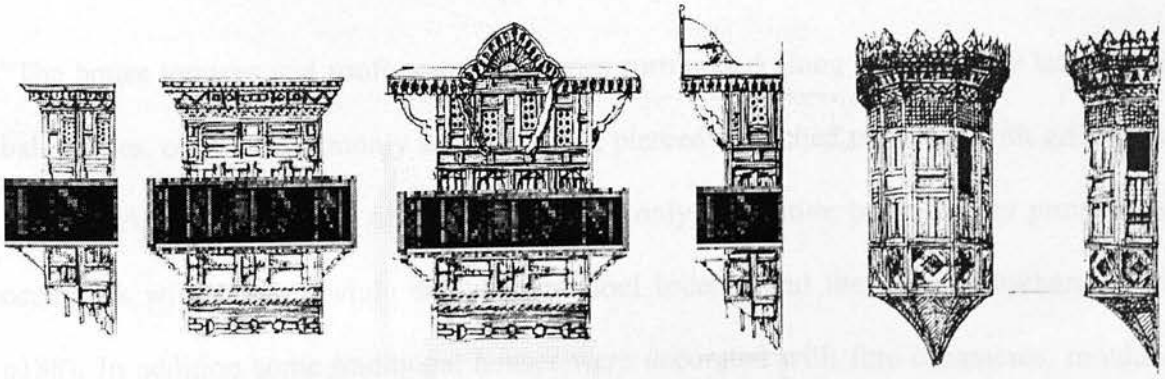


Figure 7.35: Different types of *Rawashin*.
Source: Greenlaw, 1976, p106.

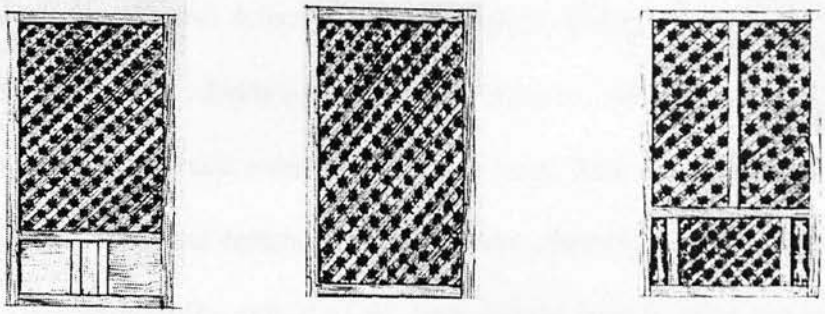


Figure 7.36: Different types of *Shish*.
Source: Greenlaw, 1976, p110.

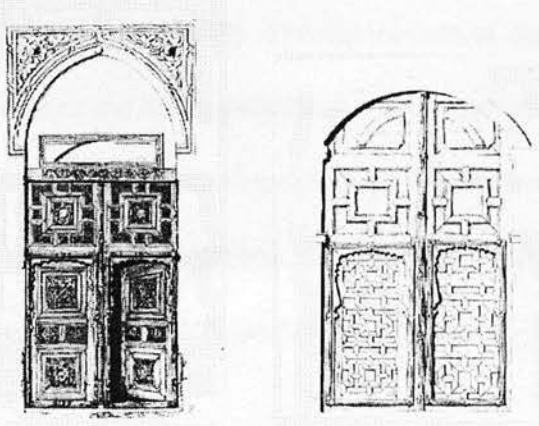


Figure7.37: The carved Entrances of traditional houses.
Source: Greenlaw, 1976, p114.

"The house terraces and roofs were sometimes surrounded along the edges by latticework balustrades, or more commonly a high parapet, pierced by arched openings with grilles and latticework. This treatment of the roof was not only decorative but rather to provide the occupants with privacy while enjoying the cool breezes and the view" (Bokhari, 1978, p188). In addition some traditional houses were decorated with fine ornaments, moulded into the exterior wall surfaces.

7.5 Urban Change in the City Since 1947

The control of King Abdul Aziz and the unification of the Kingdom of Saudi Arabia brought new instability to Jeddah as the city experienced rapid modernisation. By 1929 the first house of reinforced concrete had been built; less attractive perhaps than the delicate coral limestone but certainly a more durable alternative. 1940 saw the advent of electricity, 1948 marked the arrival of the first airfield, and in 1965 the first automatic telephone system was introduced (Bokhari, 1978).

Until 1947 the city boundary was clearly defined by the city wall and the area inside which was about 1.8 km^2 (Momra, 1978). The demolition of the city wall in 1947 was an important turning point in the urban growth as it now expanded to meet the needs of the new era. Bokhari (1978) wrote "the demolition of the city wall was not the result of an actual urbanisation pressure and growth necessity as much as an insight to meet future expectation and objectives with regard to the city's role" (Bokhari, 1978, p 277).

By the beginning of the 1950s, Jeddah became surrounded by various heavily populated districts, such as Al-Sabeel, Al-Bagdhadiyyah, and Al-Hindaweyyah. Simultaneously a large number of native inhabitants of Jeddah began to leave the traditional city in favour of the new suburbs such as Al-Ammariyyah, Al-Kandarah and the new settlements along Makkah and Madenah roads.

The city urban growth can be seen in the extension of the city boundaries for, as soon as the city wall had disappeared the city experienced a building boom which increased the city boundaries. By 1956 virtually the whole of the area within new suburbs was built-up, and there was a major thrust of development North (to Sharafiyah) and East (to the South of Makkah road). Between 1947 and 1956 the built-up area of the city had increased by over 30 km^2 to a total of approximately 33 km^2 (Daghistani, 1993).

In 1961 the total built-up area of the city was 14.6 km^2, the increase since 1956 being approximately 4 km^2. By the year 1971 the total built-up area reached about 32.5 km^2 (see figure 7.38). By 1987 it was 225.55 km^2 (Momra, 1978).

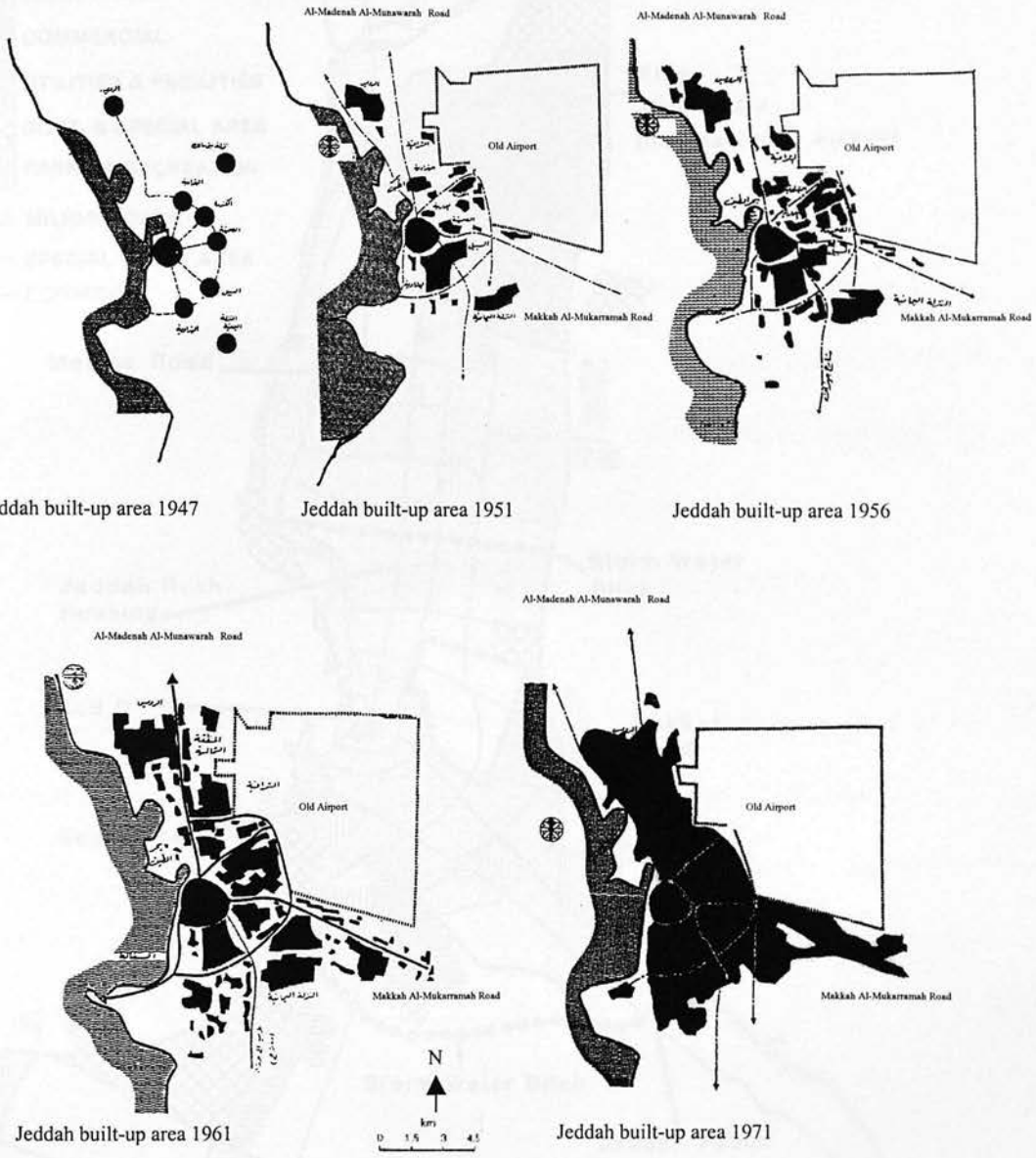


Figure 7.38: The Growth of Jeddah
Source: Momra, 1978.

The process of developments in Jeddah was coupled with a large number of immigrants from the surrounding regions looking for better opportunities for their living, in addition to a large number of temporary foreign labour force. Jeddah was not then ready yet to receive such large number of people in term of housing and services.

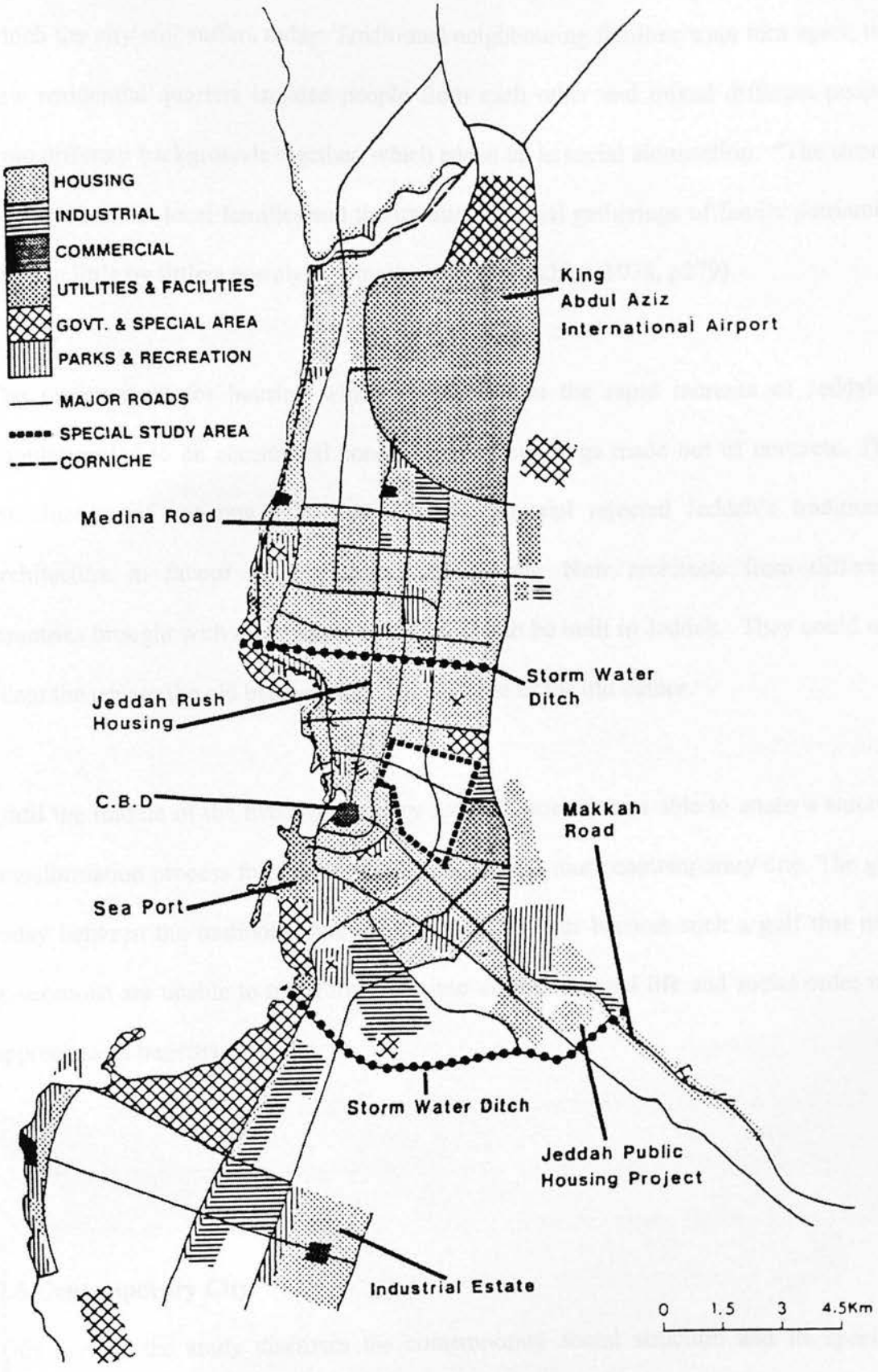


Figure 7.39: Jeddah in 1980
Source: MOMRA, 1978.

All these changes within Jeddah did not pass without causing a harsh social impact which the city still suffers today. Traditional neighbouring families were torn apart; the new residential quarters isolated people from each other and mixed different people from different backgrounds together, which ended up in social atomisation. "The strong ties between the local families and the traditional social gatherings of family patriarchs became little by little a nostalgia of bygone days" (Bokhari, 1978, p279).

The urgent need for housing which emerged from the rapid increase of Jeddah's population led to an accelerated construction of buildings made out of concrete. The introduction of concrete as a new building material rejected Jeddah's traditional architecture in favour of new design approaches. New architects from different countries brought with them ready-made designs to be built in Jeddah. They could not adapt the new to the old because they had no sense of the old values.

Until the middle of the twentieth century Jeddah's society was able to attain a smooth transformation process from the traditional order to a more contemporary one. The gap today between the traditional and the contemporary has become such a gulf that new generations are unable to transform back into their traditional life and social order nor appreciate its benefits.

7.6 Contemporary City

This part of the study discusses the contemporary social structure and its specific morphology in addition to the built environment within which it developed. The discussion of the contemporary city identity focuses here on the city as it is today.

7.6.1 Contemporary Social Structure

Since the city's origins, and until the middle of the twentieth century, the society of Jeddah maintained its cultural traditions, changing and adjusting incrementally. The social structure of Jeddah was homeostatic, remaining close to the religion and tradition. "The town's culture, drawing upon the source of Islam, was well integrated, homogenous, simple, and austere" (Bokhari, 1978, p 274). The traditional social structure as we have seen in the previous part, was harmonious. The last five decades have witnessed rapid change not only in the social structure, but also in all aspects of life in the city.

The inhabitants of Jeddah are a mixture of permanent and temporary residents. The permanent residents are of two types, the native citizens whom are originally Arabs with a mixture of non-Arab immigrated as pilgrims and settled at the beginning of the nineteenth century and other citizens emigrated from other Saudi rural and urban areas after the oil boom in 1950s. The temporary residents are non-citizens people from all over the world whom have been welcomed to assist in the country's development. "In the late 1970s the non-Saudi proportion of the population of Jeddah increased; in 1978 it was over 50%, whereas it was approximately 43% in 1971" (Sert Jackson International, 1980, p37). This figure reflects the large arrival of temporary residents as well as the availability of and demand for employment created as a result of the expanded programme of development of the city. No doubt the settled temporary foreign communities have had a great influence on the city's way of life. In addition to this, many Saudi families have migrated to Jeddah from different parts of Saudi Arabia, such as Makkah Al-Mukarramah, Al-Madenah Al-Munawarah, Taif and Abha also in order to obtain better living conditions. "In early times most of the foreigners who came to Jeddah were wealthy people and traders. They contributed to the physical

development of the city by erecting a number of examples of traditional buildings with fine architectural elements, as well as contributing to the economic development of the city. On the other hand, the majority of newcomers who came as a result of the rapid economic growth of the country since the 1950s were low-income people from the working class. They came in order to gain work. They settled in groups in certain parts of the city, especially near the old part of the town and the southern part of the city" (Al-Harbi, 1989, p 155).

Services, commerce, construction and transportation are the major fields of employment in the city. The service industry attracts the bulk of the employed population. However, in the late 1970s, construction was the leading sector attracting more temporary labour force to the city, and generating most of the market for manufacturing as well as a range of professional services. Most of the employees in the manufacturing or construction fields are from those sections of the population which would not be expected to stay long in the city, while the other sections of the population are more likely to be employed in the commercial or service fields, or have employment in government departments. It has been noted that the majority of the Saudi employed population is found in commerce and service industries in addition to government employment (AL-Harbi, 1989).

The economic growth led many people from the surrounding regions and countries to migrate to the major cities for better employment opportunities. Jeddah in particular attracted different classes of people. For example, low-income people came to work in the construction and service activities, and these were mainly Yemenis, Indians, Pakistanis, Philippinos etc. There were also professionals such as teachers, doctors, engineers etc., and these came mainly from Arabic and European countries.

The city economy is now predominantly a service one and the highest level of services in the region, and particularly in the financial, commercial, tourist and distributive sectors, are usually found in Jeddah. A substantial majority of all bank offices in the Western Region are in Jeddah. The majority of the Saudi employed population is found in the commercial and service industries in addition to government employment. In fact, the opportunity of work has played a major role in the population distribution and income class structure within the city.

Jeddah houses different classes of people, from unskilled labourers to highly skilled technicians and industrial workers, from simple government employees to highly specialised professionals. They are spread throughout the city. However, the new arrivals to the city always tried to live as close as possible to their place of work which has meant that, in many cases, they formed local communities. Some social classes are therefore concentrated in certain areas of the city. In general the lower income people mainly occupy the Southern part of the city, the central area, and the unplanned areas in the North. The middle income people are in the Northeastern, and also the Eastern part of the city. The upper middle and high-income residents are found mainly in Northwestern part of the city. Jeddah's contemporary social structure can be seen to occupy only two levels: the first one is the individual or the nuclear family, the second level is the society (see figure 7.40).

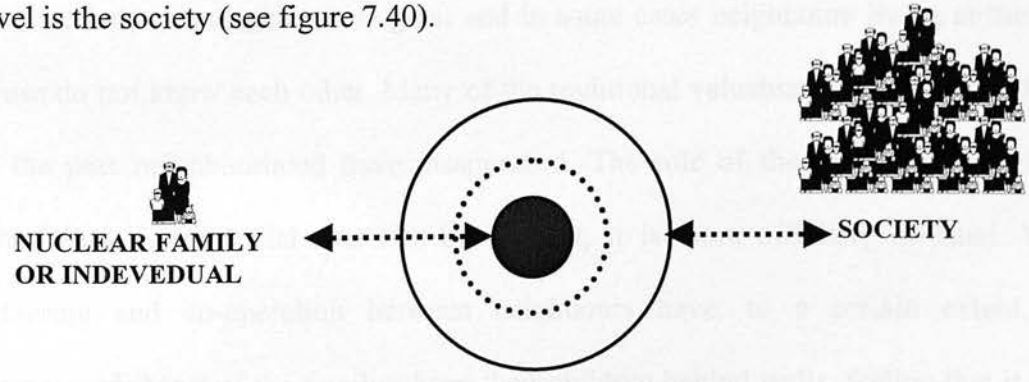


Figure 7.40: Social structure of the contemporary society of Jeddah.
Source: The author.

7.6.1.1 Contemporary Family

With more varieties of occupation and experience available than earlier, and with jobs easily accessible in different regions of the country, the extended family household began to give way to the nuclear family household. Some members of the family had to take jobs in other remote cities, while among the younger generation there seems to have grown a common preference for private life after marriage (Bokhari, 1978). However, despite this relative independence, emotional support and financial obligations remained strong among the separated members of the extended family. It is interesting to note here that in many cases, older parents might move into a married son's home (usually the oldest son) and live with him and his family. At the same time, ties and interactions between the large family members have been weakened through the introduction of modern services and modes of communication along with other aspects of modernisation. For instance, the replacement of personal contact by the telephone is one cause of the weakening of direct interaction, and watching the television set has replaced discussions among the family members in the evenings.

7.6.1.2 Contemporary Community

In the community at large, people are becoming more independent; communal interaction is weakening and ties between neighbours are not as valued as before. The distance between neighbours is great and in some cases neighbours living at the same house do not know each other. Many of the traditional valuable customs and traditions of the past neighbourhood have disappeared. The role of the neighbourhood leader (*Omdah*) is not a social role like in the past, it is more officially oriented. Visits, gathering and co-operation between neighbours have, to a certain extent, also disappeared. Most of the families keep their children behind walls, feeling that it is not safe to allow them to play in the streets.

7.6.1.3 Contemporary Society

Jeddah's society could no longer cope with or resist the pressure of urbanisation. The large foreign temporary workforce that came to the city during the modernisation process opened up the way for socio-cultural change in Jeddah's society. As a result, many of the traditional ways of life and expressions of cultural identity started to disappear in some places and were ignored in others. Consequently the homogeneity of the society was lost, and almost the whole society has become more complex and less integrated. This has led to the first signs of social discontinuity in the urban life of Jeddah. Also the improvement of the transportation network at both the international and domestic levels, the availability of market facilities, the contact with other cultures, new educational facilities, and so forth, made it possible for almost every member of the society to become better informed about the rest of the world. It has also become economically feasible for every citizen to go abroad. The people who have travelled have seen different social norms and different lifestyles. Some of them have been influenced by what they have seen there and tried to emulate it, regardless of its suitability for their own society (Z. Al-Lyaly, 1990).

7.6.2 Urban Structure and Contemporary Architecture

Jeddah's urban growth had been directly guided by natural determinants and confined by the Red Sea to the West and by foothills to the East. Therefore Jeddah developed from the traditional town first Eastward along Makkah Al-Mukarramah Road and into the foothills, and then linearly Northward and Southward. The current area of Jeddah is 1,200 km^2, of which 350 km^2 is built up (Ministry of Information, 1996). Land-use in Jeddah is highly intermixed with the residential component dominating the overall pattern within the city.

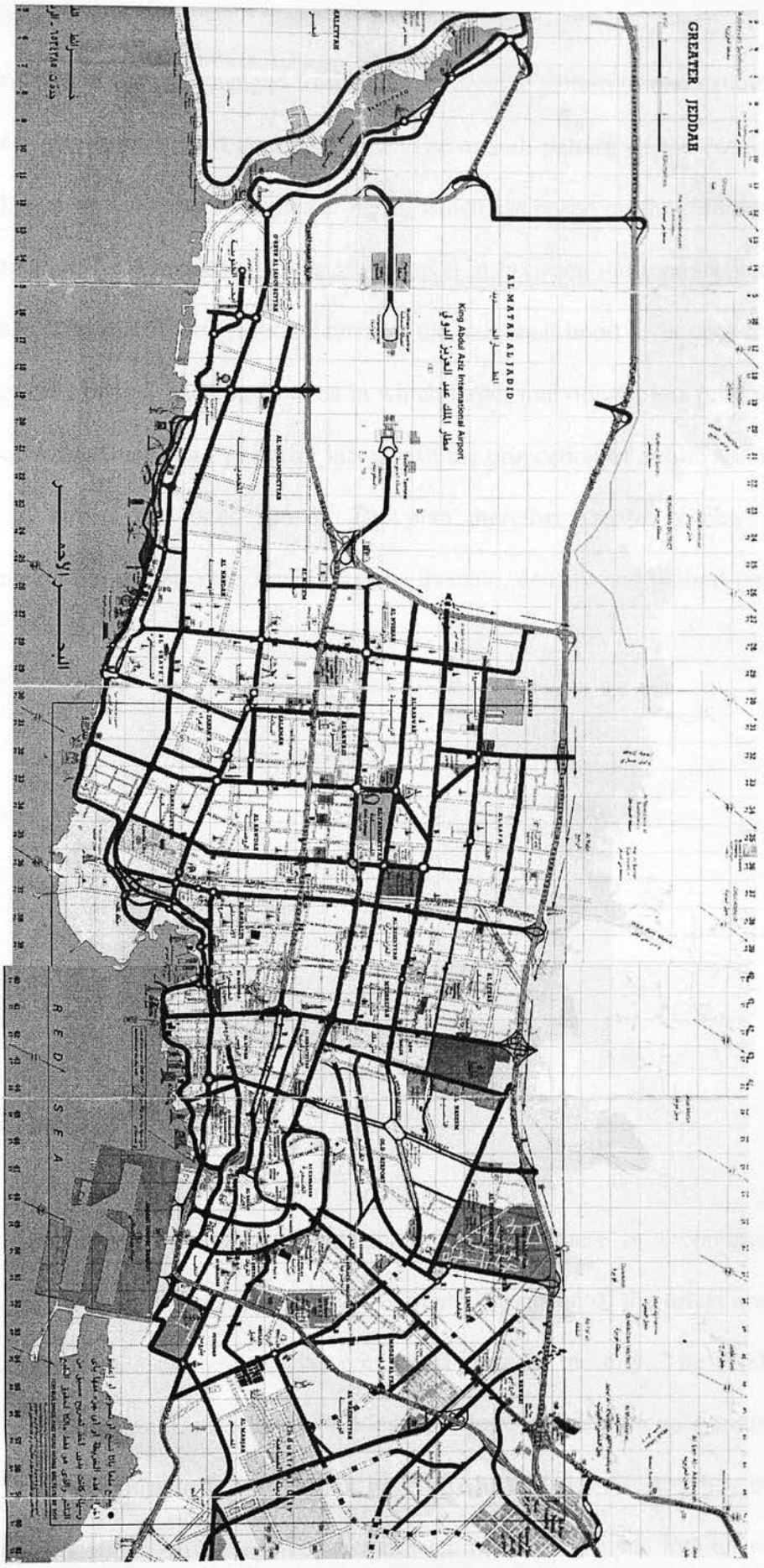


Figure 7.41: Jeddah districts and roads map
Source: Farsi, Zaki, Jeddah roads map, 1985.

7.6.2.1 Urban Form

The urban form of the city changed from being an organic pattern to one determined by geometrical shapes in a short period of time. The overall pattern of the contemporary areas is driven by the concept of master plans, which are based on the gridiron pattern of development. New residential areas are planned in between the intersections of the major roads. The use of the gridiron pattern at the neighbourhood level encourages the emergence only of new housing patterns in which larger individual plots produce lower density building. There is a significant increase in the proportion of public areas of land assigned to streets and open spaces. The plan therefore creates a new physical environment differing from the traditional one in scale, density and pattern (see figure 7.42).

Figure 7.42: Part of the unplanned areas in Jeddah, 1998.

Source: The author.

Most of the contemporary areas are planned. However, there is a continuation of unplanned areas in some parts of the city. The rapid expansion of the urban area is one of the reasons for the existence of the unplanned areas of the city. The dwellings in those two areas are grouped randomly, leaving only narrow access for cars around them. The streets are irregular in layout, do not have a regular width nor are they built to a standard specification. All the open spaces in such areas are private lots on which no construction has taken place.

The basic urban structure of the contemporary planned areas is similar; one can see the closeness and similarity of countless other urban anatomies. The buildings stand in the middle of plots delineated by a gridiron street pattern, and the rectangular shapes of flat-roofed structures, evenly spaced and uniform in design, all combine to give the contemporary areas a distinctive urban form which contrasts with that of the traditional areas (see figure 7.43).

The basic layout of most contemporary areas is a rectangular grid. This simplifies expansion and the provision of the infrastructure services to all areas. The roads are straight and wide, following requirements imposed by the highly demanding automobile. The planning of the new quarters is based on the western concept of real estate speculation. Each quarter is subdivided into small blocks, each with an average size of 50 x 50m, or larger blocks of 50 x 200m, surrounded by streets, and each block is subdivided into smaller lots, with an average size of 25 x 25m (Al-Harbi, 1989).

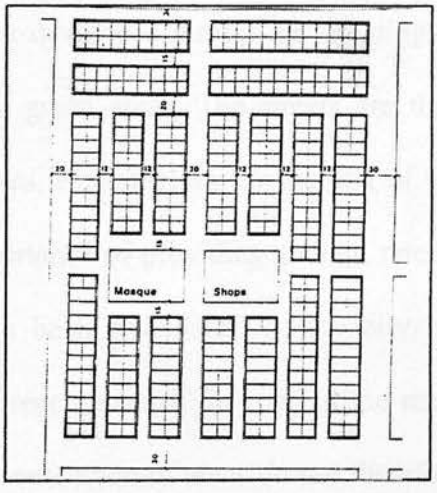


Figure 7.43: The gridiron street pattern of most contemporary areas in Jeddah
Source: The author.

7.6.2.2 Streets Pattern and Open Spaces

The whole plan of Jeddah shows great emphasis on transportation. An inflexible grid network has been introduced into the city. The network of roads and streets in most of

the contemporary areas are constructed of sufficient width to cope with the increasing number of vehicles. At the points of intersection, bridges are constructed to avoid congestion. However the traffic problems have not been fully solved, and in many areas of the city the traffic load is substantially greater than the network can handle. The street patterns are regular and the individual routes are barely distinguishable from one another.

Figure7.44: Al-Madenah Al-Munawarah Road one of the main roads in Jeddah, 1998.
Source: The author.

Most of the areas which developed during the building boom lack truly open social spaces, including public green areas. The streets are the only spaces which can be considered as open spaces. Nevertheless, by the end of the 1970s the municipality of Jeddah realised the importance of providing enough open spaces. Consequently many gardens and parks have been established in the city; unfortunately most of these facilities are difficult to reach, even if they are in the residential areas, except by car. The open spaces in the contemporary areas do not therefore provide the same function as those in the traditional areas, which were designed to fulfil social needs and to encourage social interaction among the residents (Al-Harbi, 1989).

Figure 7.45: A large open space surrounded by streets from all sides, 1991.
Source: The author.

The lack of secure 'neighbourhood' spaces in the residential areas forced the residents to enclose much of their children's playtime within the walls of their houses. Not only that but some traditions and customs, such as gathering outside the dwellings, disappeared. The author believes that such losses have had a significant impact on minimising social contact and encouraging individualistic attitudes among neighbours.

7.6.2.3 Residential Districts

The contemporary area of the city is characterised by two types of residential district, the planned and unplanned, the unplanned districts being those which emerged during the economic and building boom in the early 1970s. They are mainly found in the Eastern, Southeastern and Southern parts of the contemporary area. They are few in number compared with the planned districts. The main element of the unplanned quarters is the residential dwelling, the speculative developers' main aim being to make the maximum use of their plot of land, with any land left over being used as streets. This has resulted in narrow winding streets, difficulties in accessing some dwellings and a lack of open spaces.

The planned districts are those which have been developed more recently in addition to those that are located in the central and northern part of the contemporary areas. The majority of these quarters are provided with essential services. The predominant building types are the apartment buildings and villas. All the areas which have been developed in recent years are characterised by a network of streets which facilitates the maximum use of automobiles. Pedestrian traffic is kept to a minimum due to the lack of shade along the roads.

The contemporary area of the city consists of many districts. All the contemporary districts (except those in the unplanned areas) have a uniform appearance from the planning point of view. The only boundaries between districts are major roads. Physically each district is well connected with the others, a matter which makes it hard to distinguish between the two districts except by looking at street signs where the name of the district is written. The lack of any hierarchical order of open spaces and streets in the contemporary districts affects the relationship between people and their community. This relationship is not well developed as, once he has left his dwelling, a man is transplanted to the city without experiencing any intermediate grading of spaces. The relationships and social ties among the residents can be said to immediately weaken when there is a lack of meeting places. Nowadays people depend almost entirely on cars for their movement within the city. The gap between the traditional districts with their hierarchical open spaces, streets and living environment, and the contemporary districts continues to widen.

7.6.2.4 Shopping Places

Jeddah being a transit point for pilgrims and also a year-round tourist city, its commercial activities have intensified during the last thirty years with the construction

of huge shopping centres, supermarkets and wholesale stores (Ministry of Information, 1996) The concept of specialist traditional market routes has been eliminated in the contemporary city. The orientation in shopping is towards the new indoor shopping centres in which all types of goods can be readily found. The new air-conditioned shopping centres and supermarkets which spread all over the city further attract people by providing socially-minded services such as sitting areas, children's play areas, food services etc. In terms of form, some of the new shopping centres and supermarkets have added some visual interest and strong, identifiable features to the built environment whereas others have had the opposite effect (compare figures 7.46 and 7.47).

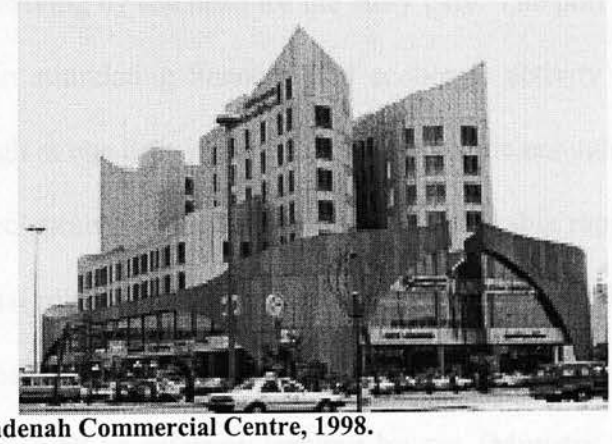


Figure 7.46: Al-Madenah Commercial Centre, 1998.
Source: The author.

Figure 7.47: Al-Mahmal Commercial Centre, 1998.
Source: The author.

The specialist traditional market routes still exist within the traditional city and forms the heart of commercial activities of that part. They include gold, silver and currency exchange, and wholesale. Most of the city's enterprising merchants choose to have one shop or more within the city centre as a symbol of prestige and because it is the centre for wholesale to serve the whole region.

7.6.2.5 The Islamic Port of Jeddah

The Islamic Port of Jeddah is the largest port in the Kingdom of Saudi Arabia for the transportation of passengers and goods. It is also regarded as the port for Makkah, from which pilgrims arriving by sea head for the Holy City. The port of Jeddah has played a prominent role in stimulating financial and economic activity in the city since early times, even though at one time it had only one quay wide enough for only two ships at a time. As the development of the Kingdom of Saudi Arabia rapidly increased, the port played an essential role in handling millions of tons of the materials used to achieve this development. The port was fully reconstructed to include 40 quays which handle all sorts of goods as well as pilgrims arriving by sea (Ministry of Information, 1996). However, the city is no longer tied to the activities of the port as it was in the past.

7.6.2.6 Mosques

The number of mosques in the contemporary city of Jeddah has increased significantly with the city expansion. They are scattered throughout the city as the municipality of Jeddah grants land in the new building zones for the construction of mosques. They are different in size and shape to best serve the religious and cultural needs of their neighbourhood (see figure 7.48).

The local orthodox attitude towards decorative art has always inspired sobriety in design and construction. Domes are used sometime for roofing the mosques, minarets are always single. The interior normally consists of one big prayer hall for men and another small mezzanine one for women.

Figure 7.48: Different mosques design within the contemporary neighbourhoods, 1998.
Source: The author.

4.6.2.7 Recreational Areas

Jeddah's Cornish, or sea front, is one of the city's most important features and is a major attraction for visitors to Jeddah. As Jeddah's Red Sea coast extends for more than 80 km (50 miles), the municipality has made use of this long expanse of waterfront and turned it into a place of fresh air for the city. The Cornish is divided into three parts: The Northern coast, the Southern coast, and Obhur shore. The Northern part was built first, to serve as a park for the city's inhabitants. It was carefully landscaped to take advantage of the nature of the terrain and allow the best possible views of the sea and to best appreciate the effects caused by the sunlight reflecting on it. Seats were scattered along the Cornish to provide comfort for families and individuals. The Southern part was built next, after filling in shallow ravines up to 35 km to the South. Obhur shore is to the North of the city, and characterised by its deep water. The Cornish was extended to run parallel to the south beach of Obhur shore so that picnic sites could be set up. Along Obhur shore spread the compound cabins to which people use to go and spend the weekends and holidays.

The city's orientation towards promoting tourism has encouraged the private sector to invest in recreation and tourist activities. Many different recreational projects have appeared within the city such as fun parks, indoor children's recreation areas, an animal zoo etc (see figures 7.49 and 7.50).

Figure 7.49: Jeddah Cornish, 1998
Source: The author.

Figure 7.50: Fun Park along Jeddah Cornish, 1998
Source: The author.

7.6.2.8 Contemporary Architecture and Houses

There are many different types of dwelling to be found in the contemporary city. These could be categorised as squatter houses (*Al-Beut Al-Shabiah*), apartment buildings and villas. However, the detailed analysis will be limited to the latter dwelling category, the villa type, which is the predominant of the three.

Squatter houses were first built to accommodate the low-income people, the newcomers from different countries and immigrants from different parts of Saudi Arabia, especially

from the villages. They are mainly found in the unplanned areas. The majority are built without the help of experts. Most of them were built with cement block or brick load-bearing walls and wood roofs covered with cement. The majority of Al-Beut Al-Shabiah have a courtyard around which the rooms are arranged. The area of the house ranges from 100 to150 m^2 and they are typically one or two storeys high. The rooms do not have a specific function but their use depends on the occupier's preference.

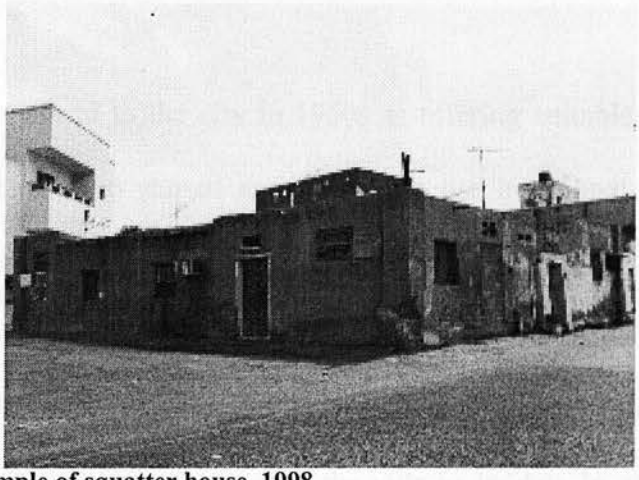


Figure 7.51: An example of squatter house, 1998.
Source: The author.

The apartment buildings are scattered all over the city, mainly to meet the great demand for housing in mid 1950s as a result of the increase of population. They are mainly to accommodate middle-income people including foreign professionals from different countries. The apartment building is a multi-story block ranging from two to thirteen storeys and consisting of several flats per floor, each flat being a separate dwelling unit. Generally speaking the flats were designed in such a way that most of the rooms were arranged in a linear manner leaving a narrow corridor for circulation between them, or sometimes the rooms were arranged around a central hall. Consequently a wide variety of design ideas were introduced in the new building trying to fulfil the needs of the various families (see figure 7.52 and 7.53).

Figure 7.52: Apartment buildings along the Cornish of Jeddah,1998
Source: The author.

Figure 7.53: Two storey apartment building, 1998
Source: The author.

The villa was introduced to the city in 1950s as offering suitable accommodation for high-income families who started to move from the traditional town as it became overcrowded with commercial activities, to quiet areas in the North. Villas are currently the most desirable housing types for Saudi families in Jeddah. Undoubtedly the influence of the Western plan type of the European detached house in the architect's mind affected the internal arrangement of the villa in Jeddah. In other words, the villa concept was derived from the western detached house concept. This type of housing still serves high-income people (traders and government officials) in buildings of two storeys high with an area ranging from 400-1000 m^2.

(A) The Interior of the Villa

The villa is always surrounded by a wall which is usually two metres high (see figure 7.54). Most villa plots have two entrances a main entrance for guests and another entrance for the daily use of the family.

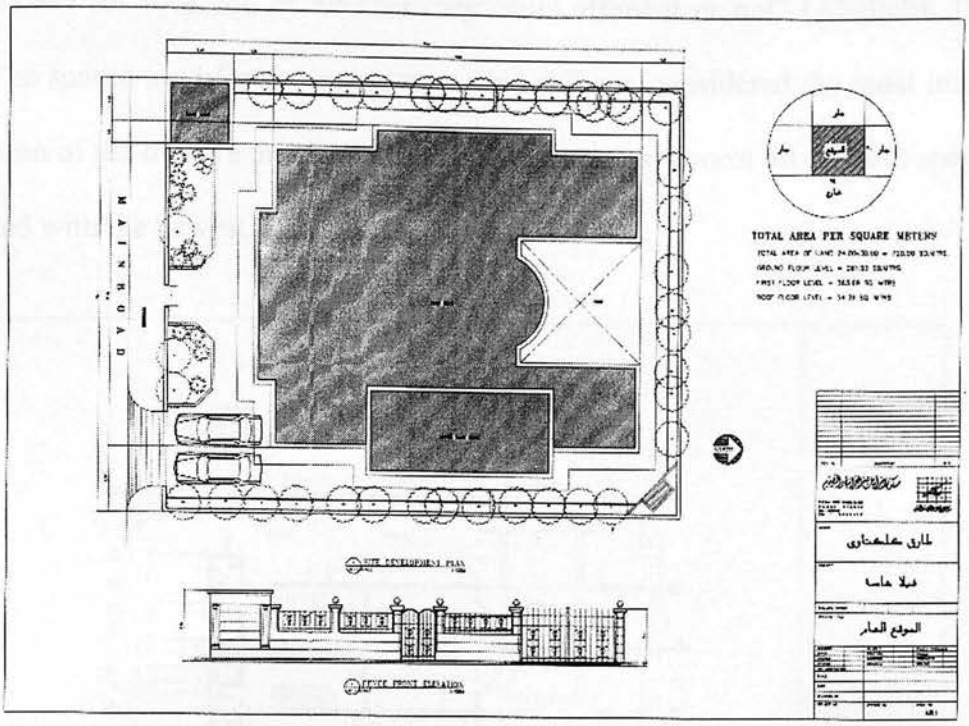


Figure 7.54: Site plan of a modern villa
Source: Maskan, 1995.

The organisation of the villa divides it into two domains the guests; and for the family. The ground floor is usually the guest's domain and the first floor is the family's domain. The ground floor usually consists of reception rooms or salons for men and women, a kitchen, dining room, toilets and stairs (see figure 7.55). The first floor consists of sleeping rooms, a living room for the family and a kitchen (see figure 7.56). There are two entrances, one for the guests and the other for the family. The guests' reception area is located next to entrance hall and directly accessible from it. It is usually divided into two rooms, one for sitting and the other for dining, and provided with a washroom and WC for guests to use without intruding upon the privacy of the family. Usually there is another guestroom that is needed when there are male and female guests (see figure 7.55). Al-Harbi (1989) wrote that "A new phenomenon has appeared in the newly built residential units, which affects their design and has led to the increase in the number of the rooms in them. It is that most of people prefer to have two rooms for the guests, one for men and the other for women. It seems that this is not only a fashionable phenomenon, but became a feature in the new living environment, whether people really

felt the need for it or not, or whether they could afford it or not" (Al-Harbi, 1989, p 216). The spaces used for the guests were, and still are, considered the most important expression of the owner's or occupier's state and status, so almost all of these spaces are furnished with the newest, most fashionable furniture.

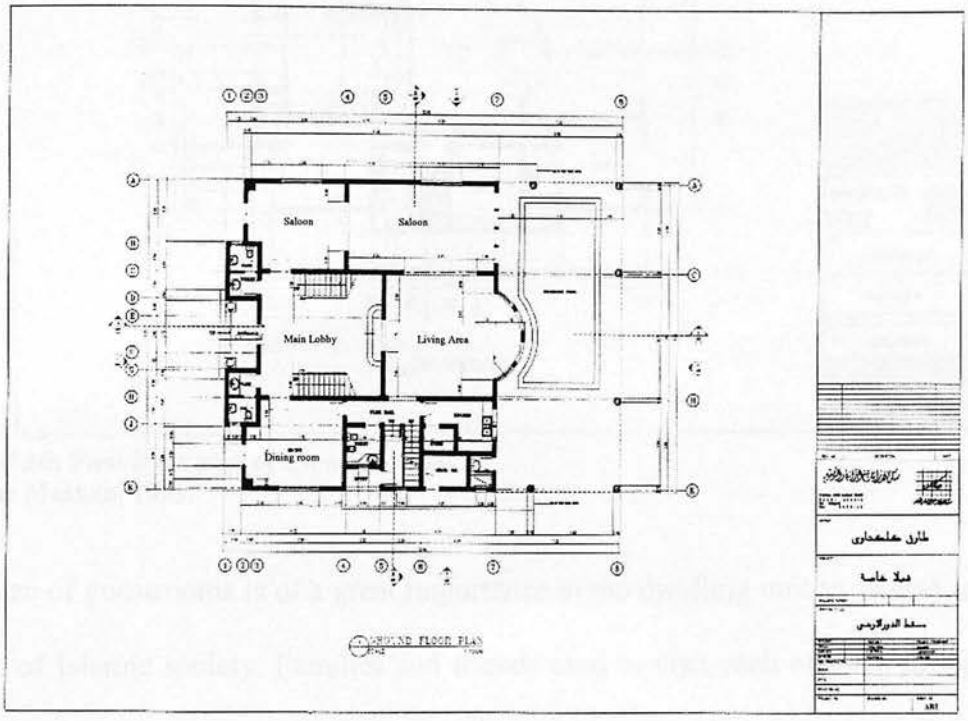


Figure 7.55: Ground floor plan of a modern villa
Source: Maskan, 1995.

The first floor is the family domain. It consists of a kitchen, bathroom and a family living room were the members of the family gather to watch television or talk. It also includes a master bedroom with an en-suite bathroom other bedrooms for the family members and sometimes balconies (the balcony being a new element in the built environment) although in traditional building there was a similar feature, the *Kharja*, but it had a different design and function (see section 7.4.2.7). All balconies in the contemporary buildings have little function to the extent that people use them as storage spaces, for they do not provide privacy to the users, and they are very small in size.

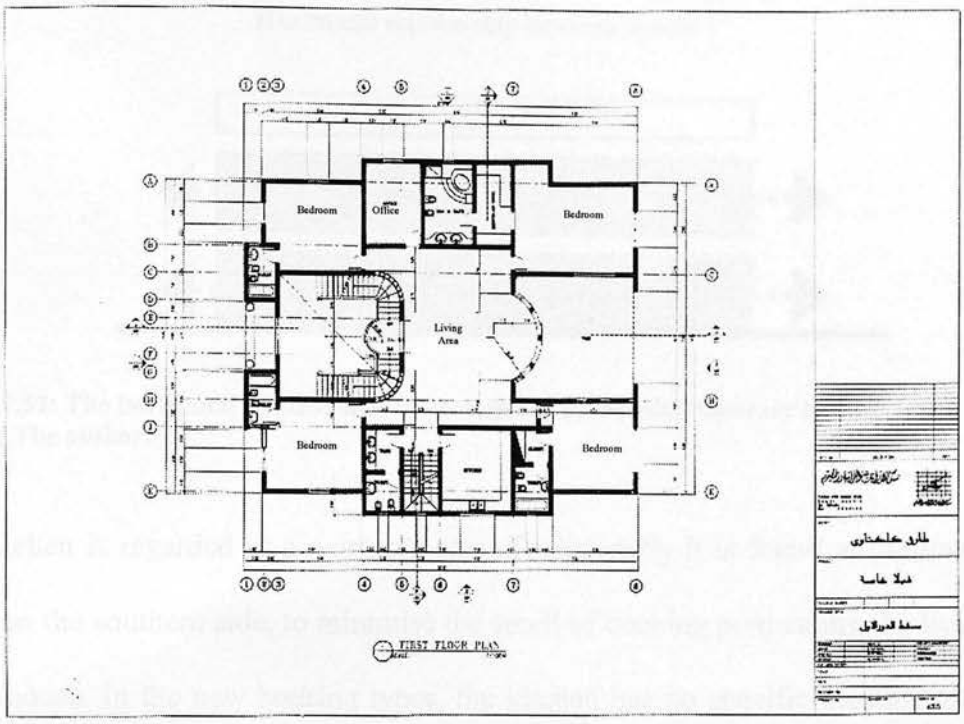


Figure7.56: First floor plan of a modern villa.
Source: Maskan, 1995.

The size of guestrooms is of a great importance in the dwelling unit in Jeddah, as in the whole of Islamic society. Families and friends used to visit each other in groups. Also the whole family used to gather in one place of the house for most of the time. It has been noticed that the rooms of most of the new housing types, especially the reception rooms and family rooms, were bigger than those of the traditional houses. Almost all the rooms are identical as regards shape and size, but they differ in function. For example, certain types of immovable furniture (such as dining table and beds) are fitted in each room and this commits each room to its function Therefore no other activities can be easily conducted in the space.

The relationship between spaces in the villas is a horizontal one. This is due to the large size of plots and the building regulations which have been enforced by the municipality of Jeddah (see figure 7.57).

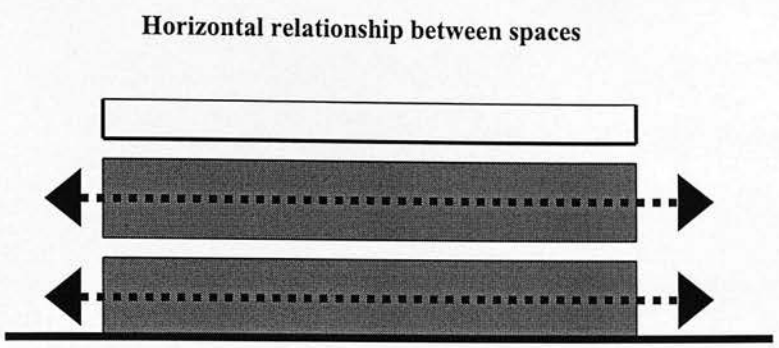


Figure 7.57: The horizontal relationship between spaces in the contemporary house. Source: The author.

The kitchen is regarded as a woman's area. Traditionally it is found at the rear of the house on the southern side, to minimise the smell of cooking permeating the living area of the house. In the new housing types, the kitchen has no specific location although, generally speaking, they receive great attention from both the owner and the designer. The quality of the finished kitchen has improved; for example, instead of a plastered wall, ceramic tiles of different shapes and different colours are used. The level of ventilation inside the kitchen has also improved; instead of only opening into a narrow light-well (*Manwar*), additional mechanical ventilation is used to circulate the air and to extract the smell of cooking. In addition to the improvements outlined above, modern cooking equipment and furniture are freely available, which has led to a considerable increase in the kitchen size in most contemporary housing.

The new houses also demonstrate a considerable change in the sanitary standards of bathrooms due to the availability of a reasonable quantities of water in the city, and to the installation of new equipment in the bathrooms. In addition to the privy, additional equipment is introduced as standard, such as washbasins, bathtubs and bidets. The use of ceramic tiles for the walls and floor enables the residents to maintain higher standards of cleanliness within the bathroom. It should be noted here that the most important technical innovation was the installation of piped water to the bathroom and the kitchen.

This has affected the design as well as the hygiene standards of the dwelling itself, in that the kitchen and bathroom are usually located next to each other whenever possible. As a result of the improvements in the sanitary standards, extra bathrooms are being introduced adjacent to, or sometimes within, the sleeping rooms. This adoption of the bathroom as a part of the sleeping area is a further revolutionary change in the design of housing.

The activities carried out inside the dwelling unit have been affected by the social traditions of the inhabitants. People, especially females, spend most of their time inside the residential unit, cooking, sitting, sleeping, discussing, watching television etc. Each of these activities is conducted in a specific space within the house. Although most people, attracted to the modern way of life, have adopted many Western habits, they still practice the traditional norms and customs to some extent, such as sitting and eating on the floor.

The lifestyle in the newly built residential units has become less flexible, as a result of the introduction of immovable furniture which commits each space to a specific purpose. The multi-functional spaces - an essential characteristic of the traditional house - are no longer found in the modern houses. Instead each room is designed primarily for one primary function. It is interesting to note here that the adoption of mechanical cooling systems (such as air-conditioners), as the most practical means of achieving thermal comfort inside the house, has affected the utilisation of space in the house. For instance, it causes the occupier to not prefer one certain space over another within the house or at any time of the day, an essential feature of the living environment of the traditional building.

(B) The Exterior of the Villa

The simplicity of exterior features is the major characteristic of the houses in the contemporary area of the city. The size, shape and treatment of the openings of the buildings have been changed gradually. It has been observed that the openings were smaller in size than those of the traditional houses. The upright rectangle of the traditional openings is replaced with a horizontally laid rectangle. The quality of woodwork of *Rawashin*, windows and other openings has been simplified in the modified traditional houses and the new housing types. Instead of the detailed lattice woodwork of *Mashrabiah* and decorative features which covered almost the whole façade of the traditional building, a simple aluminium frame with two glass panels caters for the openings of the new houses. Unlike in traditional houses, almost all the openings and the solid surface of the walls of the new houses occupy the same plane. From this, one could say that neither the clients nor the designer were aware of how the façade of the building would look. It seems that the major aim of the designer was to provide an opening for each space regardless of its social function. It is worth mentioning that the major element that has been added in the facade of these buildings is the window type air conditioning unit.

Therefore a rectangular façade with small square or rectangular openings, is the major characteristic of the contemporary houses and glazed windows with aluminium frames have become the predominant features of the openings of all houses built in the contemporary part of the city.

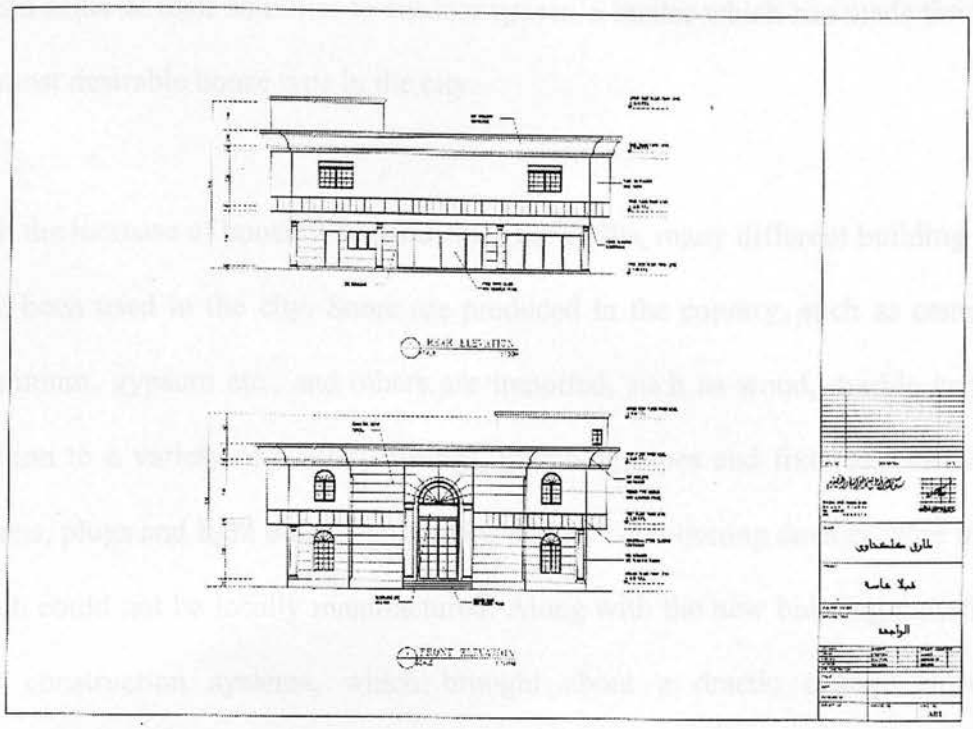


Figure 7.58: Exterior details of modern villa
Source: Maskan, 1995.

A few elements of the traditional architecture (such as *Mashrabiah* or *Rawshan* and the treatment of rooflines) remain in use in some new buildings. Initially, traditional architectural elements re-appeared to cover the openings and balconies. Later on this phenomenon spread throughout the buildings in the city, especially in those buildings facing the main roads. The author understands that the municipality originally adopted this idea and imposed it, in one way or another, throughout the city.

The interior spaces must be separated from the exterior spaces, yet at the same time be connected in a way that enhances an indoor-outdoor relationship. It is a complex situation, which results in conflicting criteria. The relationship between the private indoor spaces and public outdoor spaces was traditionally only achieved by openings in the solid walls that defined the spaces. The relationship between the interior and exterior spaces is kept to the minimum in most of houses built in the contemporary areas of the city. In the villa type, the private outdoor spaces enabled the occupants to have a reasonable relationship between the interior and exterior spaces, enabling them to

extend some of their activities to outdoor spaces, a matter which has made the villa type the most desirable house type in the city.

With the increase of housing demand since the 1970s, many different building materials have been used in the city. Some are produced in the country, such as cement, steel, aluminium, gypsum etc., and others are imported, such as wood, marble and tiles. In addition to a variety of sanitary fittings, plumbing pipes and fixtures, electric wiring, sockets, plugs and light bulbs, ceiling fans and air conditioning devices were introduced which could not be locally manufactured. Along with the new building materials came new construction systems, which brought about a drastic change in the local characteristics of the built environment. Frame construction became a new phenomenon in housing construction in Jeddah. The building materials used in this form of construction are reinforced concrete for all structural elements and hollow concrete breeze blocks for the walls (Z. Al-Lyaly, 1990). With the introduction of new building materials and techniques, the unity of buildings with their environment and location has been lost and the relationship between identity and building material has been almost completely eroded.

7.7 Summary

This chapter has traced certain developments and changes in Jeddah since its origins to the present day. The aim has been to understand those changes that have led to the present features of the built environment. The author has argued that we can best understand the process of change in the built environment by analysing the factors affecting its development. Therefore, the chapter has attempted to identify the major factors influencing the change of the built environment. The most significant factors were historical development, change in social structure and the change in the city role and economy.

This chapter also reviewed the built environment of Jeddah. It found that the change between the city in the past and at present has been dramatic. The intensity of that change was explained by investigating and comparing the traditional and contemporary areas of the city. According to that comparison, it was found that the spatial organisation of the city has been distorted; the house forms have been changed; new public and private buildings have been added for different uses and purposes; and many residential areas have been established. Moreover, the characteristics of the buildings, streets and open spaces have been affected.

The social environment has undergone several changes of lifestyle and population. While the changes in the social structure have had a great effect on the built environment, the mass emigration has had a sudden impact. In addition, economic development is the driving force which has generated several problems within the built environment.

Within the next chapter (The Questionnaire) the author tries to address these issues in order to investigate in details the built environment as a medium for the presentation of identity from the point view of people.

CHAPTER EIGHT: THE OPEN-ENDED QUIESTIONNAIRE

8.1 Prologue
8.2 Analysis Methods
8.3 Personal Information
8.4 Piling Analysis
8.4.1 Information about the House
8.4.2 Information about the Neighbourhood
8.4.3 Information about the City
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8.5.4 Landscape Dimension
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8.5.6 Psychological Dimension
8.5.7 Architectural Dimension
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8.6 Summary of Findings

(8)

THE OPEN-ENDED QUESTIONNAIRE

8.1 Prologue

The aim of this part of the study is to examine how the Saudis interpret the identity of the built environment and how they express them self through it. The main emphasis here is on the perception of identity of the built environment. The approach was adopted based on people's perceptions of the physical and non-physical elements within the case study and which they have been identified with over a period of time, that is, before and after the change of the built environment.

This part of the study reviews the results of an open-ended questionnaire (see Appendix A). Forty-four (44) Saudis were interviewed, thirty-two men and twelve women. The sample was limited in the Saudi population to fulfil the research objective. The interview was informal and lasted between two and three hours in order to allow the participants to feel free to say anything they wanted and talk about their feelings, ideas, experience and expectations. The questionnaire was divided into four parts: the first one concerning personal information and the other three exploring different aspects and dimensions related to the house, the neighbourhood and the city.

Thirty-three (33) questions were included which concentrate on different issues. The purpose of these questions is to elicit Saudi's interpretations of the built environment and thus find aspects for the interpretation of the physical and non-physical phenomena of the city of Jeddah. The survey takes into consideration the two different parts, the traditional one and the modern extensions of the city.

8.2 Methods of Analysis

Obtaining the information and data from the fieldwork is a precursor to further analysis concerning the conceptual structure and the physical feature of the city. Patton (1990), in explaining the process of analysis in research, writes "The process of data collection is not an end in itself. The culminating activities of qualitative inquiry are analysis, interpretation and presentation of findings. The challenge, therefore, is to make sense of a massive amount of data, reduce the volume of information, identify significant patterns and construct a framework for communicating the essence of what the data reveal" (Patton, 1990, p371).

Consequently this questionnaire was carried out using an approach that focused on a historical comparison of the situation in the past and the present related to differences that interviewers have identified between traditional and contemporary features of the city. To achieve the above-mentioned results, various techniques were carried out, namely:

(1) Piling: piling techniques of responses were conducted in three ways; piling of responses for each individual question; then the piling of responses for a group of questions depending on the author's recognition of the parameters of his inquiry; and lastly accumulated piling to the responses of all questions.

(2) Dimensions: Dimensions can be defined as the motivating forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory. These motives also are divided into two types, external and internal. External motives consist of various elements such as climate, construction materials, site topography etc, whereas internal motives include the social

needs of interaction and participation, inherited traits of living etc. Every building, every emotion, every action is a result of a number of these underlying requirements (see Chapter 2.8). This technique of analysis identifies the underlying dimensions used by respondents to evaluate their built environment by using a classification process on all the superficial reasons that people mentioned in the questionnaire.

8.3 Personal Information

Age: In table 8.1 below, the respondents are grouped into four different age groups: 20-30 years 31-40 years, 41-50 years and over 51 years.

Age	Frequency	Percent
20-30	9	20.5
31-40	21	47.7
41-50	8	18.2
51-Over	6	13.6
Total	44	100.0

Table 8.1: Distribution of the respondents by age

Education: The respondents of the questionnaire are classified into six main groups according to the degree they hold: secondary school, high school, diploma, baccalaureate, master and doctorate as shown in table 8.2 below. The result shows that 81.7% of the respondents are highly educated.

Education	Frequency	Percent
Secondary School	1	2.3
High School	7	15.9
Diploma	2	4.5
Baccalaureate	29	65.9
Master	2	4.5
Doctorate	3	6.8
Total	44	100.0

Table 8. 2: Distribution of the respondents by education

Occupation: A wide variety of occupations are represented in the results. Therefore occupation was grouped into broad categories to offer a clearer understanding as shown in table 8.3 below. One group covers students while others consist of government officers, private officers, businessmen, professors, teacher and finally the retired people. It should be noted that the occupations listed is not a direct indication of the person social class. For example a government officer could be a general manger earning about 30,000 SR/month or a clerk earning 4,000 SR/month. Also a private officer could be accountant earning 7,000 SR/month or a secretary earning 3,000 SR/month.

Occupation	Frequency	Percent
Student	3	6.8
Government Officer	15	34.1
Private Officer	16	36.4
Businessman	3	6.8
Professor	4	9.1
Teacher	2	4.5
Retired	1	2.3
Total	44	100.0

Table 8.3: Distribution of the respondents by occupation

Place of Residence: the sample covered nearly the entire city. The areas where people involved in the questionnaire live are shown in table (8.4) below (see figure 7.41). Traditional Jeddah is no longer occupied by the native inhabitant of Jeddah (see Chapter Seven Section 7.5). It is been used as storage for the commercial areas so it is difficult to find a Saudi family living there.

Place of Residence	Al-Jameah	Ghulayl	Al-Zahra'a	Al-Rawdah	Al-Salamah	Al-Fisalyah	Al-Hammrah	Al-Amir Fawaz	Al-Muhammdyyah	Al-Shate'e	Al-Azizeyyah	Al-Naeem	Al-Butat	Madain Al-Fahd	Al-Hawamat	Al-Rehab	Al-Safa	Old Airport	Al-Baghdadyyah
No	1	1	1	8	2	4	2	2	4	2	3	4	1	1	1	2	3	1	1

Table 8.4: Distribution of the respondents group by place of residence

Length of Stay: Table 8.5 below shows the number of persons surveyed classified into three Groups according to their length of stay at the city of Jeddah. The survey shows that Jeddah is the hometown for most of respondents and of that they have been in the city for a long time.

Length of Stay	Frequency	Percent
0-10 years	2	4.5
11-25 years	2	4.5
Over 25 years	40	91.0
Total	44	100.0

Table 8.5: Distribution of the respondents by the length of stay at Jeddah

Martial Status: Table (8.6) below shows that 86.4% of the respondents are married and experience family life.

Martial Status	Frequency	Percent
Married	38	86.4
Single	6	13.6
Total	44	100.0

Table 8.6: Distribution of the respondents group by martial status

Family Size: The sample is classified into three main groups: 2 to 5 persons; 6 to 8 persons and 9 to 12 persons (see table 8.7 below).

Family Size	Frequency	Percent
2-5	19	43.2
6-8	19	43.2
9-12	6	13.6
Total	44	100.0

Table 8.7: Distribution of the respondents by family size

Specialisation: Table (8.8) below shows that the sample is equally divided between professionals engaged in the built environment (as in architects, planners or landscape architects) and non-professionals or other professionals.

Specialisation	Frequency	Percent
Professional	22	50.0
Non professional	22	50.0
Total	44	100.0

Table 8.8: Distribution of the respondent group by specialisation

From the personal information of the respondents we can sum up that they are mainly adults, educated, have a stable life and most of them have been in the city for a long time. As seen from the length of stay that sample has taken in consideration the subjectivity to reflect on both past and present identity of the city. This means that they know probably every single part of the city and they have had close and personal experience of many of the developments and changes that have happened during the period of modernisation. It can be assumed that their answers will be clear, expressive and generated from their knowledge about their culture and knowledge of their everyday life.

8.4 Piling Analysis

8.4.1 Information about the House

One of the most important objects that people use to express their identity is the house. Indeed, houses are an important part of the social communicative system through which people exchange information about their status as well as about culturally held values and meanings. It is a symbol of the family, the basic unit of Muslim society, and a powerful symbol of culture and history (see Chapter Five).

Question (1): In what type of dwelling do you live? Please mention three reasons why you have chosen your current house.

These Two types of dwelling (apartment flats and villas) are the two main types of dwelling that can be found in Jeddah (see Chapter Seven for details of each). When asking Saudis about types of accommodation they live in, the answers were placed in one of the two categories (see table 8.9). These two types are the most dominant types in most contemporary Saudi Arabian cities.

Dwelling type	Frequency	Percent
Villa	23	52.3%
Flat	21	47.7%

Table 8.9: Dwelling type

Piling results of responses shows that ownership is the most important factor which led interviewees to choose the villa type. At a second stage comes the availability of facilities such as schools, mosque, supermarkets, etc. The distinguished location of the villa is another important attraction of this house type, for example if it is facing an open space or if the building plot has two elevations. Besides these psychological aspects, noise level was also another important reason in determining where people preferred to live, and such areas are more generally associated with the villa type.

Reasons behind choosing the flat type of dwelling were more modest. Proximity of the accommodation to work was a major factor, especially now that the size of the city has expanded many-fold and traffic flow has become a major problem. The size of spaces was an important reason in selecting accommodation. Most Saudis living in apartment building are middle class people, rent affordability is a major factor which leads people to live in flats.

Reasons such as proximity to other family houses, sufficiency for family size and proximity to a mosque are also mentioned. In most answers to this question, neighbour interaction and coherence and practical convenience for a Saudi Arabian family were mostly related to the villa type (see table 8.10).

Reasons		Type of House		Total
		Villa	Flat	
Ownership	Count	9	5	14
	%	13.0%	7.9%	10.6%
Proximity to work	Count	4	8	12
	%	5.8%	12.7%	9.1%
Quietness	Count	6	5	11
	%	8.7%	7.9%	8.3%
Location	Count	7	4	11
	%	10.1%	6.3%	8.3%
Facilities	Count	7	4	11
	%	10.1%	6.3%	8.3%
Size of spaces	Count	3	6	9
	%	4.3%	9.5%	6.8%
Proximity to other family houses	Count	3	5	8
	%	4.3%	7.9%	6.1%
Affordable rent	Count	1	6	7
	%	1.4%	9.5%	5.3%
Sufficiency for family size	Count	4	3	7
	%	5.8%	4.8%	5.3%
Proximity to mosque	Count	2	2	4
	%	2.9%	3.2%	3.0%
Neighbour interaction and coherence	Count	3	1	4
	%	4.3%	1.6%	3.0%
Design	Count	1	3	4
	%	1.4%	4.8%	3.0%
Accessibility to and from the Neighbourhood	Count	1	3	4
	%	1.4%	4.8%	3.0%
Convenience for a Saudi family	Count	3		3
	%	4.3%		2.3%
The location of Neighbourhood in or nearby north side of the city	Count	2	1	3
	%	2.9%	1.6%	2.3%
Neighbourhood aesthetics	Count	2	1	3
	%	2.9%	1.6%	2.3%
Proximity to city centre	Count	2	1	3
	%	2.9%	1.6%	2.3%
Shaded car parking	Count	2		2
	%	2.9%		1.5%
Toward good view	Count		2	2
	%		3.2%	1.5%
Social standing of residents	Count		1	1
	%		1.6%	.8%
Tranquillity	Count	1		1
	%	1.4%		.8%
Quality of finishes	Count	1		1
	%	1.4%		.8%
Convenience to a modern way of life	Count		1	1
	%		1.6%	.8%
Proximity to shopping centres	Count		1	1
	%		1.6%	.8%
Proximity to the sea	Count	1		1
	%	1.4%		.8%
Proximity to main roads	Count	1		1
	%	1.4%		.8%
Proximity to schools	Count	1		1
	%	1.4%		.8%
Building quality in the neighbourhood	Count	1		1
	%	1.4%		.8%
Neighbourhood design	Count	1		1
	%	1.4%		.8%
Total	Count	69	63	132
	%	100.0%	100.0%	100.0%

Table 8.10: Cross reference of house type and reasons of choosing a house.

Question (2): Mention two different spaces in your house you think are not necessary or not properly used. For each space please give two reasons.

This question examines up to what level Saudis were satisfied with one practical aspect of their houses' design. Table (8.11) shows the different spaces in the house which are unnecessary or not properly used according to the respondents. These spaces are house yard, balconies and main hall. There were also other spaces mentioned, like dining room, roof, guestroom and additional bedroom and some spaces mentioned only once or twice, like entrance hall, storage etc. About 17.4% of the respondents were satisfied with their houses' design.

Spaces	Frequency	Percent	Valid Percent
House yard	14	15.9	20.3
Balconies	13	14.8	18.8
Main hall	7	8.0	10.1
Dining room	4	4.5	5.8
Roof	3	3.4	4.3
Guest room	3	3.4	4.3
Additional bedroom	3	3.4	4.3
Entrance hall	2	2.3	2.9
Additional suite	2	2.3	2.9
Guest entrance	2	2.3	2.9
Storage	1	1.1	1.4
Building entrance hall	1	1.1	1.4
Kitchen	1	1.1	1.4
Additional guest room	1	1.1	1.4
No unused space	12	13.6	17.4
Total	69	78.4	100.0
Missing	19	21.6	
Total	88	100.0	

Table 8.11: Unnecessary or Improperly used spaces in the house.

Respondents mentioned different reasons behind a space in their house they thought was not necessary or badly used. Table (8.12) shows the piling results of reasons for spaces in the house which are not necessary or not properly used. The most important reasons mentioned by the respondents were size of space, privacy and utilisation of area. Reasons such as adaptation to environment and climate, design, customs and tradition and relationship between functions were also mentioned.

(Negative) Reasons	Frequency	Percent	Valid Percent
Size of spaces	27	15.3	26.2
Privacy	22	12.5	21.35
Utilisation of area in design	20	11.4	19.41
Adaptation to environment and climate	9	5.1	8.75
Design	8	4.5	7.77
Customs and traditions	5	2.8	4.85
Relationship between functions	5	2.8	4.85
Convenience for a Saudi family	3	1.7	2.93
Ventilation	2	1.1	1.95
Lighting	1	.6	.97
Furniture movability and arrangement possibility	1	.6	.97
Total	103	58.6	100.0
Missing	73	41.4	
Total	176	100.0	

Table 8.12: Reasons for unnecessary or improperly used spaces in the house.

These reasons do not have the same priority of importance. One can see in table (8.13) the different reasons behind a space being not properly used in a house. For example, the house yard is not properly used because it does not provide privacy to users, its size is not enough and it is not designed and utilised well.

Balconies are not necessary or not properly used because of their small size, they do not provide privacy and are not well adapted to the environment and climate (see Chapter Seven section 7.6.2.8). The reasons behind the main hall being regarded as being unnecessary or improperly used is that its size is not enough for its function, ventilation is not good, it does not provide privacy and its relationship with other functions in the house is not well organised. The dining room is not necessary or not properly used because it is not suitable to Saudi eating customs and traditions and is not utilised well as a space. Finally the roof is not properly used mainly because it does not provide privacy to users (see figure 8.1).

(Negative) Reason		House Yard	Balcony	Main Hall	Dining Room	Roof
Adaptation to environment and climate	Count	2	6			1
	%	7.1%	23.1%			16.7%
Ventilation	Count			2		
	%			14.3%		
Lighting	Count			1		
	%			7.1%		
Privacy	Count	11	7	2		2
	%	39.3%	26.9%	14.3%		33.2%
Customs and traditions	Count		1		4	
	%		3.8%		50.0%	
Size of spaces	Count	5	8	3		1
	%	17.9%	30.8%	21.4%		16.7%
Design	Count	4		1		
	%	14.3%		7.1%		
Utilisation of area in design	Count	4	2	2	2	1
	%	14.3%	7.7%	14.3%	25.0%	16.7%
Relationship between functions	Count			2		
	%			14.3%		
Convenience for a Saudi family	Count				2	
	%				25.0%	
Missing	Count	2	2	1		1
	%	7.1%	7.7%	7.1%		16.7%
Total	Count	28	26	14	8	6
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.13: Cross reference of the five most mentioned dwelling spaces that respondents think are unnecessary or improperly used and the reasons given.

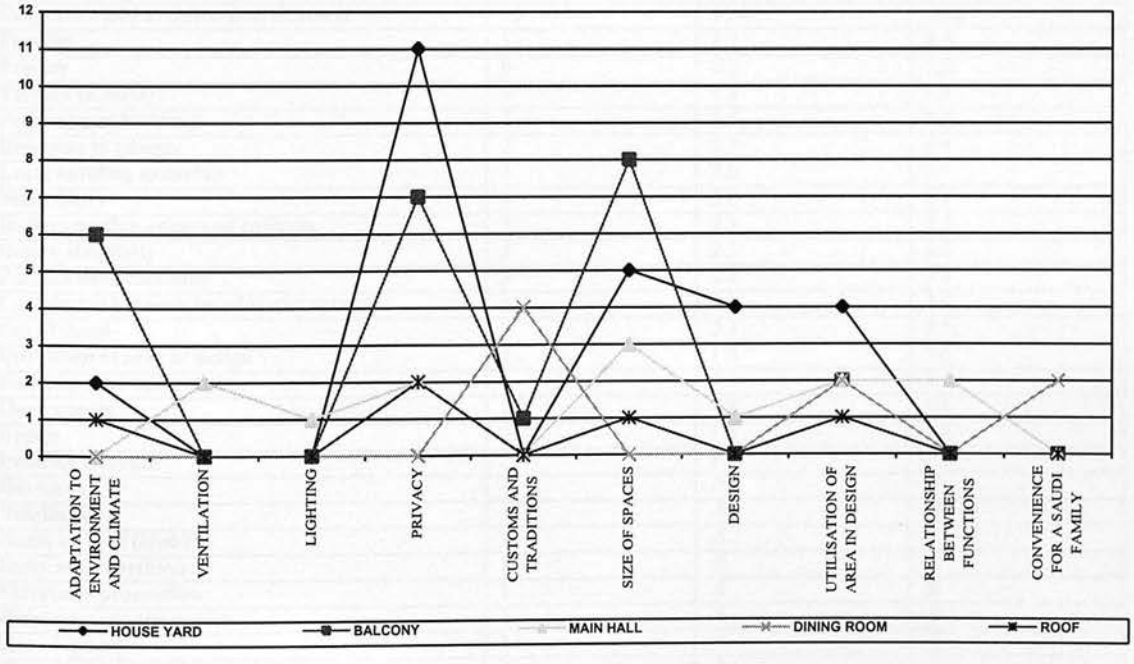

Figure 8.1: Reasons for the five most mentioned dwelling spaces that respondents think are unnecessary or improperly used.

Question (3): Mention three aspects you most like about Jeddah traditional houses. For each, please give two reasons.

The results of responses to question (3) are that Saudis mentioned many different things that they liked in Jeddah's traditional houses. Table (8.14) shows that the most important aspects are mainly related to the exterior of the house such as the bay window (*Rawshan*), decorative and architectural elements and buildings' façades. Other aspects people most liked of Jeddah's traditional houses related to privacy, response to climate, design simplicity and the correlation between interior and exterior. These aspects all related to the interior and the exterior of the house. Aspects such as use of built-in seating areas and cabinets, area utilisation and exterior spaces inside the house like terrace (*Kharja*) are also important aspects of the traditional house related to the interior of the house.

Aspects	Frequency	Percent	Valid Percent
Bay window (*Rawshan*)	25	18.9	19.4
Decorative and architectural elements	15	11.4	11.6
Façades	11	8.3	8.5
Privacy	9	6.8	7.0
Terrace (*Kharja*)	9	6.8	7.0
Proximity of buildings	7	5.3	5.4
Response to climate	7	5.3	5.4
Local building materials	4	3.0	3.1
Main doors	4	3.0	3.1
Built-in seating areas and cabinets	3	2.3	2.3
Design simplicity	3	2.3	2.3
Parapet denticulations	3	2.3	2.3
Correlation between interior and exterior	3	2.3	2.3
Use of wood	3	2.3	2.3
Utilisation of area in design	2	1.5	1.6
Building mass and ratio	2	1.5	1.6
Open spaces	2	1.5	1.6
Design	2	1.5	1.6
Building strength	2	1.5	1.6
Harmony	1	.8	.8
Building size	1	.8	.8
Room on roof (*Mabit*)	1	.8	.8
Unity and repetition	1	.8	.8
Elevations proportion	1	.8	.8
Hierarchy of open spaces	1	.8	.8
Size of spaces	1	.8	.8
Use of limestone	1	.8	.8
Arabic style	1	.8	.8
Colours	1	.8	.8
Entrance	1	.8	.8
Levels in design	1	.8	.8
Ceiling height	1	.8	.8
Total	129	97.7	100.0
Missing	3	2.3	
Total	132	100.0	

Table 8.14: Aspects respondents liked in Jeddah's traditional houses.

The most dominant apparent reasons for any aspects being liked by respondents were the architectural reasons for example the details of different features, the role of these features in the correlation between interior and exterior spaces or in forming the architectural identity, and the use of some spaces inside the house as an interior open space. Aesthetical reasons were also very important, forming about 25.4% of the total valid percent of reasons (see table 8.15).

Dimension		Reasons	Frequency	Percent	Valid Percent
Architectural		Architectural details	18	6.8	7.0
		Correlation between interior and exterior	15	5.7	5.9
		Architectural identity	11	4.2	4.3
		Interior open space	9	3.4	3.5
		Size of spaces	4	1.5	1.6
		Utilisation of area in design	3	1.1	1.2
		Relationship between functions	3	1.1	1.2
		Local building materials	3	1.1	1.2
		Buildings strength	3	1.1	1.2
		Sufficiency for family size	3	1.1	1.2
		Opening size	2	.8	.8
		Furniture movability and arrangement possibility	1	.4	.4
		Angles of vision	1	.4	.4
	Total		**76**	**28.7**	**29.9**
Aesthetic		Aesthetic values	65	24.6	25.4
	Total		**65**	**24.6**	**25.4**
Environmental		Ventilation	18	6.8	7.0
		Adaptation to environment and climate	9	3.4	3.5
		Lighting	5	1.9	2.0
		Shade provision	5	1.9	2.0
		Electricity dependency	3	1.1	1.2
		House health level	4	1.5	1.6
		Consideration of orientation	1	.4	.4
	Total		**45**	**17.0**	**17.3**
Socio-cultural		Privacy	9	3.4	3.5
		Neighbour interaction and coherence	9	3.4	3.5
		Customs and traditions	8	3.0	3.1
		Family coherence	2	.8	.8
		Consideration of religious aspects in design	8	3.0	3.1
		Original heritage	4	1.5	1.6
	Total		**40**	**15.1**	**15.6**
Psychological		Security	8	3.0	3.1
		Simplicity	7	2.7	2.7
		Luxury	5	1.9	2.0
		Visual comfort	4	1.5	1.6
		Tranquillity	3	1.1	1.2
		Secured environment for children to play	2	.8	.8
	Total		**29**	**11.0**	**11.4**
Planning		Skyline	1	.4	.4
	Total		**1**	**.4**	**.4**
Total			256	97.0	100.0
Missing			**8**	**3.0**	
Total			264	100.0	

Table 8.15: Reasons for aspects respondents liked in Jeddah's traditional houses.

Other important reasons concerned environmental factors such as natural ventilation, general adaptation of houses to environment and climate, use of natural lighting and the role of houses in providing shade to outdoor areas. Social reasons were also important, with people mentioning the level of privacy which the house provides, neighbourhood interaction and coherence, the continuity of customs and tradition and the role of the house organisation in enhancing the coherence of the extended family. Respondents also mentioned psychological reasons like security, simplicity, luxury and visual comfort.

Table (8.16) shows the reasons for the five most appreciated aspects of Jeddah's traditional houses. Respondents liked the bay window (*Rawshan*) for providing a correlation between interior and exterior spaces, its role in natural ventilation and in ensuring good privacy for the family inside the house (see Chapter Seven section 7.4.2.7). Decorative and architectural elements of traditional houses were liked for their aesthetic values and the good quality of their finishes and details. Respondents mentioned the terrace (*Kharja*) as an important space in Jeddah traditional houses because it is an interior space open to the outside, fulfils a function as natural ventilation and has a role in correlating between interior and exterior spaces (see Chapter Seven section 7.4.2.7).

Reason		Bay window (*Rawshan*)	Decorative and architectural elements	Façades	Privacy	Terrace (*Kharja*)
Original heritage	Count	2	1			
	%	4.0%	3.3%			
Architectural identity	Count	1	3	3		
	%	2.0%	10.0%	13.6%		
Consideration of religious aspects in design	Count	1			7	
	%	2.0%			38.9%	
Adaptation to environment and climate	Count			1		
	%			4.5%		
Ventilation	Count	7				5
	%	14.0%				27.8%
Privacy	Count	7				1
	%	14.0%				5.6%
Neighbour interaction and coherence	Count				1	
	%				5.6%	
Customs and traditions	Count				8	
	%				44.4%	
Visual comfort	Count	1				
	%	2.0%				
Security	Count	1			2	
	%	2.0%			11.1%	
Simplicity	Count			3		
	%			13.6%		
Correlation between interior and exterior	Count	9				4
	%	18.0%				22.2%
Local building materials	Count			2		
	%			9.1%		
Architectural details	Count	3	11	2		
	%	6.0%	36.7%	9.1%		
Opening size	Count			1		
	%			4.5%		
Interior open space	Count					8
	%					44.4%
Aesthetic values	Count	18	15	10		
	%	36.0%	50.0%	45.5%		
Total	Count	50	30	22	18	18
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.16: Cross reference the five most like aspects of Jeddah's traditional houses and the reasons given.

Question (4): Mention three aspects you do not like about Jeddah's traditional houses. For each, please give two reasons.

Table (8.17) shows the piling results for the most disliked aspects of Jeddah traditional houses. They were mainly interior aspects such as stairs, the vertical relation between spaces, Sanitary quality of bathrooms and the rooms' small size. People were also not happy with the location of the kitchen in relation to the living room, the entrance hall, nor with the building's inconvenience to a modern way of live nor the level of lighting inside the houses.

Only a few exterior aspects were mentioned as disliked features of Jeddah's traditional houses for example buildings' small sizes, proximity of buildings and colours. People also mentioned number of general aspects such as quality of finishes, design, excessive use of wood (see Appendix B figure B.6) and poor sound insulation. About 7.6 % of the valid percent of respondents replied that there was nothing they disliked in traditional houses.

(Negative) Aspect	Frequency	Percent	Valid Percent
Stairs	34	12.9	14.4
Vertical relation between spaces	30	11.4	12.7
Sanitary quality of bathrooms	26	9.8	11.0
Ceiling heights	18	6.8	7.6
Size of spaces	14	5.3	5.9
Size of buildings	12	4.5	5.1
Kitchen location	12	4.5	5.1
Entrance hall (*Dahlias*)	12	4.5	5.1
Finishing	10	3.8	4.2
Proximity of buildings	10	3.8	4.2
Convenience to a modern way of life	10	3.8	4.2
Design	8	3.0	3.4
Lighting	4	1.5	1.7
Excessive use of wooden work	4	1.5	1.7
Sound insulation	4	1.5	1.7
Relation between spaces	2	.8	.8
Wooden ceiling	2	.8	.8
Door thresholds	2	.8	.8
Colours	2	.8	.8
Interior doors	2	.8	.8
Like all aspects	18	6.8	7.6
Total	236	89.4	100.0
Missing	28	10.6	
Total	264	100.0	

Table 8.17: Aspects respondents do not like about Jeddah traditional houses.

Reasons for respondents disliking Jeddah's traditional houses were architectural reasons such as difficulty in movement inside the house, non-conformity with international space standards, littleness of spaces, difficulty in arranging furniture inside the small rooms, discontinuity of spaces, insufficiency to family size and lack of modern equipment. Environmental reasons were also important, people mentioning that traditional houses were difficult to keep clean and they therefore saw traditional houses as being unhealthy under modern standards.

Other important reasons for disliked aspects of Jeddah's traditional houses were psychological reasons for example lack of safety, noise and lack of tranquillity. They also mentioned number of economic, socio-cultural and aesthetic reasons (see table 8.18).

Dimension		(Negative) Reason	Frequency	Percent	Valid Percent
Architectural		Movement easiness	25	9.5	11.8
		Standards conformity	18	6.8	8.5
		Size of spaces	15	5.7	7.0
		Furniture movability and arrangement possibility	14	5.3	6.6
		Continuity of space	8	3.0	3.8
		Sufficiency for family size	8	3.0	3.8
		Availability of modern equipment	7	2.7	3.3
		Convenience to a modern way of life	4	1.5	2.0
		Space co-ordination	4	1.5	2.0
		Relationship between functions	3	1.1	1.4
		Interior creation and change possibility	2	.8	1.0
		Maintenance	2	.8	1.0
		Guest reception comfort	1	.4	.5
	Total		**111**	**42.1**	**52.7**
Health		Ease of cleaning	20	7.6	9.4
		House health level	17	6.4	8.0
		Lighting	12	4.5	5.6
	Total	Ventilation	2	.8	1.0
		Visual comfort	2	.8	1.0
		Electricity dependency	1	.4	.5
			54	**20.5**	**24.5**
Psychological		Safety	12	4.5	5.6
		Quietness	6	2.3	2.9
		Tranquillity	5	1.9	2.4
		Security	1	.4	.5
	Total		**24**	**8.9**	**11.4**
Economic		Building and maintenance cost range	9	3.4	4.2
	Total		**9**	**3.4**	**4.2**
Socio-cultural		Privacy	7	2.7	3.3
	Total		**7**	**2.7**	**3.3**
Aesthetic		Aesthetic values	6	2.3	2.9
	Total		**6**	**2.3**	**2.9**
Total			211	79.9	100.0
Missing			53	20.1	
Total			264	100.0	

Table 8.18: Reasons for aspects respondents do not like about Jeddah traditional houses.

Table (8.19) shows the reasons for the most disliked aspects of Jeddah's traditional houses. People considered the stairs for example, as not conforming to current safety standards and thus not safe to use, and also that the vertical relation between spaces led to difficulty in movement between spaces, space discontinuity and problems in the movement of furniture.

Bathrooms of the traditional houses were disliked for many for being unhealthy, lacking in modern equipment, being small in size and not conforming to modern standards (see Chapter Seven). Respondents also disliked the ceiling height of traditional buildings because it is difficult for anybody to clean them, they incur extra costs in building and maintenance and create awkward space co-ordination and proportion.

(Negative) Reasons		Stairs	Vertical Relation Between Spaces	Bathrooms	Ceilings Height
Building and maintenance cost range	Count		1		5
	%		3.6%		31.3%
House health level	Count			7	
	%			26.9%	
Ease of cleaning	Count		3		7
	%		10.7%		43.8%
Ventilation	Count			1	
	%			3.8%	
Lighting	Count	5		1	
	%	14.7%		3.8%	
Safety	Count	9			
	%	26.5%			
Size of spaces	Count	1		4	
	%	2.9%		15.4%	
Availability of modern equipment	Count			6	
	%			23.1%	
Continuity of spaces	Count		5		
	%		17.9%		
Furniture movability and arrangement possibility	Count	4	5		
	%	11.8%	17.9%		
Standards conformity	Count	12		3	
	%	35.3%		11.5%	
Sufficiency for family size	Count			4	
	%			15.4%	
Space co-ordination	Count				4
	%				25.0%
Ease of movement	Count	3	14		
	%	8.8%	50.0%		
Total	Count	34	28	26	16
	%	100.0%	100.0%	100.0%	100.0%

Table 8.19: Cross reference the most disliked aspects of Jeddah traditional houses and the reasons given.

8.4.2 Information about the Neighbourhood

Neighbourhoods are not only places to live, valued for themselves, but units of urban development inextricably linked to all other city neighbourhoods and to the entire metropolitan entity (Downs, 1981). A neighbourhood's definition varies depending on the regional scales used by the residents. There are many different regional scales of neighbourhoods, ranging from the small cluster of houses, through an area in which residents share common relationships such as schools and political wards, to an entire suburb or district within a big city (see section 5.4).

"Residents perceptions of neighbourhood quality vary greatly according to conditions in both the physical and social environments. Satisfaction, of course, depends upon perception and both individual and group value-system" (Douglas Porteous, J, 1977, p81).

Question (5): Mention two things you like in your neighbourhood or community.

Table (8.20) shows the piling results of responses to question five. There are many things people liked in their neighbourhood or community, most of these being objective aspects such as a low neighbourhood noise level, proximity to services (schools, supermarkets etc), good location of neighbourhood and availability of facilities such as water, sewage and telephones.

Other things respondents liked in their neighbourhood or community were proximity to mosques, landscape, building quality in the neighbourhood, neighbourhood design, street lighting and conformity to building standards. People also mentioned other things only once, twice or three times.

Aspect	Frequency	Percent	Valid Percent
Quietness	15	17.0	17.0
Proximity to services	10	11.4	11.4
Neighbourhood location	8	9.1	9.1
Availability of facilities	6	6.8	6.8
Proximity to mosques	5	5.7	5.7
Landscape	5	5.7	5.7
Building quality in the neighbourhood	5	5.7	5.7
Neighbourhood design	4	4.5	4.5
Street lighting	4	4.5	4.5
Conformity to building convention	4	4.5	4.5
Cleanliness	3	3.4	3.4
Proximity to city centre	3	3.4	3.4
Availability of open spaces	2	2.3	2.3
Proximity to shopping centres	2	2.3	2.3
Proximity to main roads	2	2.3	2.3
Reasonable rent	1	1.1	1.1
Architectural identity	1	1.1	1.1
Neighbour interaction and coherence	1	1.1	1.1
Social standing of residents	1	1.1	1.1
Proximity to work	1	1.1	1.1
Proximity to the sea	1	1.1	1.1
Neighbourhood aesthetics	1	1.1	1.1
Car parking	1	1.1	1.1
Street width	1	1.1	1.1
Population density	1	1.1	1.1
Total	88	100.0	100.0

Table 8.20: Things respondents like on their neighbourhood or community.

Question (6): Mention two things you do not like in your neighbourhood or community.

The majority of preferences for residents related to objective rather than subjective aspects. Table (8.21) shows the piling results of responses to question six. These show many things people disliked in their neighbourhood or community, the most dominant of them being bad street paving, bad street lighting and unavailability of car parking spaces. Other disliked things were: lack of open spaces, lack of facilities, lack of a sewage system, regulation of building type and height, long distance to services and lack of neighbour interaction and coherence. Many other disliked things were mentioned only once, twice or three times (see figure 8.2).

(Negative) Aspects	Frequency	Percent	Valid Percent
Quality of street paving	9	10.2	10.6
Street lighting	7	8.0	8.2
Car parking	6	6.8	7.1
Availability of open spaces	5	5.7	5.9
Availability of facilities	5	5.7	5.9
Availability of sewage system	5	5.7	5.9
Mixing of building types and heights	5	5.7	5.9
Proximity to services	5	5.7	5.9
Neighbour interaction and coherence	4	4.5	4.7
Rain and flood drainage system	3	3.4	3.5
Proximity to shopping centres	3	3.4	3.5
Street width	3	3.4	3.5
Architectural identity	2	2.3	2.4
Noise level	2	2.3	2.4
Traffic flow	2	2.3	2.4
Buildings condition	2	2.3	2.4
Neighbourhood design	2	2.3	2.4
Population density	2	2.3	2.4
School location among houses	2	2.3	2.4
Existence of community centre	2	2.3	2.4
Markets and commercial activities	2	2.3	2.4
Landscape	1	1.1	1.2
Water table level	1	1.1	1.2
Excessive building	1	1.1	1.2
Constant flow of water	1	1.1	1.2
Building set back	1	1.1	1.2
Roads junction	1	1.1	1.2
Empty plots	1	1.1	1.2
Total	85	96.6	100.0
Missing	3	3.4	
Total	88	100.0	

Table 8.21: Things respondents do not like in their neighbourhood or community.

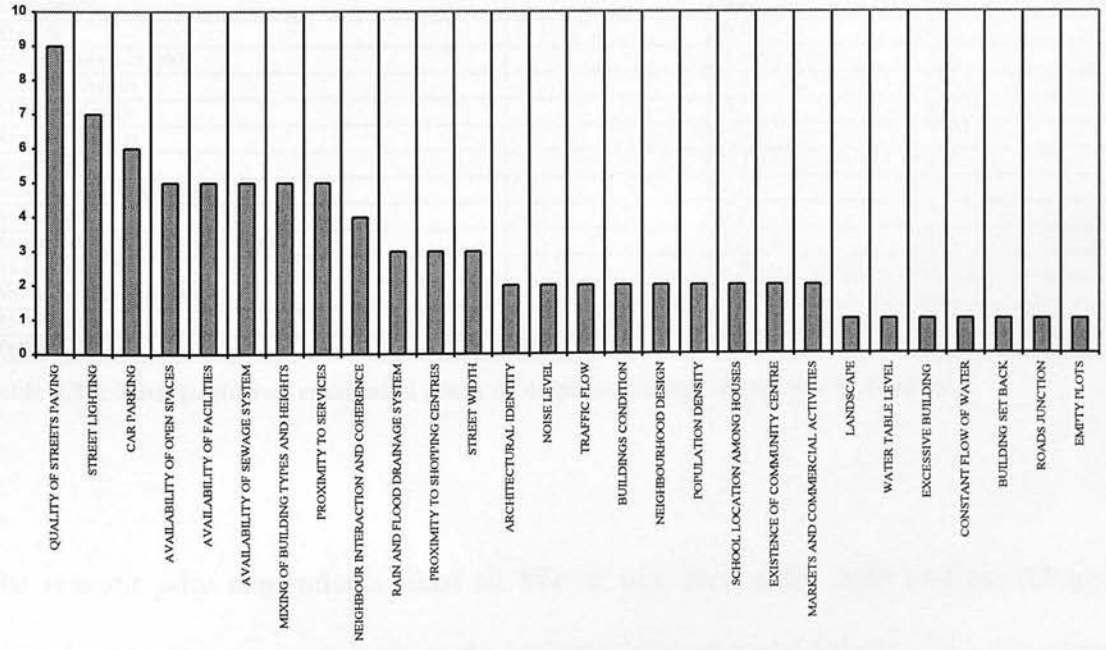

Figure 8.2: Things respondents like in their neighbourhood or community.

Question (7): Mention two areas or neighbourhood you would like most to live in. For each, please give two reasons way.

Question seven shows that the most liked areas of the city of Jeddah to live in according to the respondents are three major areas, which have similar location and character. Table (8.22) lists all the most important areas in order. Al-Hammrah, Al-Shate'e and Al- Hawamat are the most sought after areas to live in.

There were also other areas mentioned, Al-Rawdah, Al-Butat and Al-Andalus were of moderate preference according to the respondents. Other areas such as Al-Rehab and Al-Zahra'a were only mentioned a few times (see Jeddah District and roads map fig. 7.41).

Areas or neighbourhoods	Frequency	Percent	Valid Percent
Al-Hammrah	15	17.0	17.0
Al-Shate'e	13	14.8	14.8
Al-Hawamat	12	13.6	13.6
Al-Rawdah	9	10.2	10.2
Al-Butat	8	9.1	9.1
Al-Andalus	6	6.8	6.8
Al-Rehab	3	3.4	3.4
Al-Zahra'a	3	3.4	3.4
Al-Safa	3	3.4	3.4
Al-Mohammadeyyah	3	3.4	3.4
Dorat Al-Aroos	3	3.4	3.4
Al-Khaledeyah	2	2.3	2.3
Arabian Homes	1	1.1	1.1
Saudi City	1	1.1	1.1
General South Housing	1	1.1	1.1
Al-Naeem	1	1.1	1.1
Al-Baghdadyyah Al-Gharbyyah	1	1.1	1.1
Al-Bohirat City	1	1.1	1.1
North Jeddah districts	1	1.1	1.1
Al-Nahdah	1	1.1	1.1
Total	88	100.0	100.0

Table 8.22: Most preferred residential areas or neighbourhoods in the city of Jeddah.

The reasons why respondents liked to live in one area more than another differed depending on many aspects such as the location, character and importance of the area. Table (8.23) shows piling results of reasons for these preferences. The most important reasons mentioned by the respondents were building quality, neighbourhood aesthetics,

proximity to the sea, noise level and neighbourhood design. Reasons such as availability of facilities, proximity to services, cleanliness and social standing of residents are also mentioned. Other reasons such as architectural identity, neighbour interaction and coherence and transformation levels of traditional architectural elements were mentioned a few times but these respondents stressed that these were highly important criteria.

Reasons	Frequency	Percent	Valid Percent
Building quality in the neighbourhood	22	12.5	12.5
Neighbourhood aesthetics	19	10.8	10.8
Proximity to the sea	18	10.2	10.2
Quietness	16	9.1	9.1
Neighbourhood design	15	8.5	8.5
Availability of facilities	10	5.7	5.7
Proximity to services	10	5.7	5.7
Cleanliness	9	5.1	5.1
Social level of residence	9	5.1	5.1
Landscape	7	4.0	4.0
Street width	6	3.4	3.4
Proximity to city centre	5	2.8	2.8
Proximity to shopping centres	4	2.3	2.3
Neighbourhood location	4	2.3	2.3
Size of plots	3	1.7	1.7
Conformity to building convention	3	1.7	1.7
Architectural identity	2	1.1	1.1
Neighbour interaction and coherence	2	1.1	1.1
Transformation levels of traditional architectural elements	2	1.1	1.1
Proximity to other family houses	2	1.1	1.1
Proximity to main road	2	1.1	1.1
Accessibility to and from the neighbourhood	2	1.1	1.1
Proximity to work	1	.6	.6
Proximity to airport	1	.6	.6
Location in or nearby North side of the city	1	.6	.6
Population density	1	.6	.6
Total	176	100.0	100.0

Table 8.23: Reasons for most preferred residential areas or neighbourhoods in the city of Jeddah.

Table (8.24) shows the most liked residential areas with reasons of their preference. This table gives us a chance to have a general idea about people's measure for the significance of an area. It also gives us a chance to compare two different areas. These reasons do not have the same level of importance, for example respondents like to live in Al-Hammrah because of its cleanliness, proximity to the sea, building quality and neighbourhood aesthetics, while they like Al-Shate'e because of its proximity to the sea, building quality, social standing of residents and noise level.

Reasons		Al-Hammrah	Al-Shate'e	Al-Hawamat	Al-Rawdah	Al-Butat	Al-Andalus
Architectural identity	Count					1	
	%					6.3%	
Cleanliness	Count	4	1	1			1
	%	13.3%	3.8%	4.2%			8.3%
Landscape	Count	1	1		1	1	1
	%	3.3%	3.8%		5.6%	6.3%	8.3%
Neighbour interaction and coherence	Count					2	
	%					12.5%	
Social standing of residents	Count	2	3	1		1	2
	%	6.7%	11.5%	4.2%		6.3%	16.7%
Noise level	Count		3	1			1
	%		11.5%	4.2%			8.3%
Transformation levels of traditional architectural elements	Count					2	
	%					12.5%	
Proximity to work	Count	1					
	%	3.3%					
Proximity to family houses	Count				1		
	%				5.6%		
Proximity to shopping centres	Count	2			1		
	%	6.7%			5.6%		
Proximity to city centre	Count	2			1		1
	%	6.7%			5.6%		8.3%
Proximity to the sea	Count	3	5	4			
	%	10.0%	19.2%	16.7%			
Proximity to main roads	Count		1				
	%		3.8%				
Proximity to airport	Count						
	%						
Availability of facilities	Count	3	1	1	3		
	%	10.0%	3.8%	4.2%	16.7%		
Access to and from the neighbourhood	Count	1					
	%	3.3%					
Building quality in the neighbourhood	Count	3	4	6	4		2
	%	10.0%	15.4%	25.0%	22.2%		16.7%
Neighbourhood design	Count	2	1	3		5	
	%	6.7%	3.8%	12.5%		31.3%	
Location in or nearby North side of the city	Count			1			
	%			4.2%			
Street width	Count	1	1				
	%	3.3%	3.8%				
Population density	Count						
	%						
Size of plots	Count	1	1	1			
	%	3.3%	3.8%	4.2%			
Conformity to building convention	Count		2				1
	%		7.7%				8.3%
Neighbourhood location	Count				1	2	
	%				5.6%	12.5%	
Proximity to services	Count	1		1	1	1	1
	%	3.3%		4.2%	5.6%	6.3%	8.3%
Neighbourhood aesthetics	Count	3	2	4	5	1	2
	%	10.0%	7.7%	16.7%	27.8%	6.3%	16.7%
Total	Count	30	26	24	18	16	12
	%	100%	100%	100%	100%	100%	100%

Table 8.24: Cross reference of most preferred residential areas or neighbourhoods in the city of Jeddah and the given reasons

The preference behind Al-Hawamat is building quality, proximity to the sea and neighbourhood aesthetics. The answer also indicates that the more important the area is, the more reasons people mention for it. In other words, we could say that the

accumulation of mentioned reasons strengthens the importance of the area, for example an area such as Al-Hammrah, which is important for various reasons such as proximity to services, aesthetical values, proximity to the sea, proximity to the city centre, proximity to shopping centres, residents' social standing, landscape and cleanliness among others.

Question (8): Mention two areas or neighbourhoods you would not like to live in. For each please give two reasons.

The piling results of the respondents shows that the most disliked areas were the South areas of the city such as Bani Malek and Ghulayl. Other areas were mentioned several times by respondents. These areas are Al-Salamah, Al-Bawadi and Al-Naeem, which are to the North. People also mentioned a number of East districts such as Quwaizah Al-Amir Fawaz and all East expressway districts (see table 8.25).

Area	Frequency	Percent	Valid Percent
Bani Malek	9	10.2	10.2
Ghulayl	8	9.1	9.1
South Jeddah Districts	8	9.1	9.1
Al Salamah	7	8.0	8.0
Al Bawadi	5	5.7	5.7
Quwaizah	5	5.7	5.7
Al-Sabeel	5	5.7	5.7
Al Naeem	5	5.7	5.7
Al-Jameah	4	4.5	4.5
Al-Hindaweyyah	3	3.4	3.4
Al Amir Fawaz Housing	3	3.4	3.4
Makkah Al-Mukarramah Road Districts	3	3.4	3.4
East Expressway Districts	3	3.4	3.4
Al-Kandarah	2	2.3	2.3
Al-Nuzhah	2	2.3	2.3
Al-Ruwais	2	2.3	2.3
Al Safa	2	2.3	2.3
Petrofina	2	2.3	2.3
Al-Saheefah	2	2.3	2.3
Al Ballad Districts	2	2.3	2.3
Jawharat Al-Muhammdyyah	1	1.1	1.1
Al Muhammdyyah	1	1.1	1.1
Al Azizeyyah	1	1.1	1.1
Al Rawabi	1	1.1	1.1
King Abdulaziz University Housing	1	1.1	1.1
Housing Project	1	1.1	1.1
Total	88	100.0	100.0

Table 8.25: Disliked Areas or neighbourhoods.

Reasons raised by respondents for not liking an area were mostly the neighbourhood or area design, social standing of residents, neighbourhood aesthetics, water table level in the area (which can become a major problem effecting buildings), traffic flow and street width. Most areas respondents mentioned were also the unplanned areas. People tended not to like an area because it is noisy, it has bad building quality, is very dense or overcrowded and there is inadequate sewage network such that the rain causes heavy damage to properties (see table 8.26).

(Negative) Reason	Frequency	Percent	Valid Percent
Neighbourhood design	27	15.3	15.3
Social standing of residents	14	8.0	8.0
Neighbourhood aesthetics	14	8.0	8.0
Water table level	10	5.7	5.7
Traffic flow	10	5.7	5.7
Street width	10	5.7	5.7
Noise level	9	5.1	5.1
Building quality in the neighbourhood	9	5.1	5.1
Population density	9	5.1	5.1
Rain and flood problems	8	4.5	4.5
Buildings condition	7	4.0	4.0
Location in or nearby North side of the city	6	3.4	3.4
Proximity to city centre	5	2.8	2.8
Availability of facilities	5	2.8	2.8
Quality of street paving	4	2.3	2.3
Car parking	3	1.7	1.7
Street lighting	3	1.7	1.7
Markets and commercial activities	3	1.7	1.7
Cleanliness	2	1.1	1.1
Availability of sewage system	2	1.1	1.1
Mixing of building types and heights	2	1.1	1.1
Mixing of activities	2	1.1	1.1
Conformity to building convention	2	1.1	1.1
Visibility of neighbourhood entrances	2	1.1	1.1
Proximity to services	2	1.1	1.1
Privacy	1	.6	.6
Neighbour interaction and coherence	1	.6	.6
Security	1	.6	.6
Tranquility	1	.6	.6
Proximity to shopping centers	1	.6	.6
Proximity to industrial activities	1	.6	.6
Total	176	100.0	100.0

Table 8.26: Reasons for disliked areas or neighbourhoods.

Table (8.27) shows reasons for the five most disliked areas nominated by the respondents. Bani Malek area, which was one of South Jeddah recent unplanned areas, has been mentioned among the non preferred areas for being noisy, poorly planned, lacking aesthetical values, having no character and an uncoordinated mixing of uses and activities in the area.

Ghulayl was also among the areas which were not preferred by people. This area again is one of south Jeddah's contemporary unplanned areas. People found it disagreeable because it is not planned and is far away from the North side of the city were most of facilities and services are.

(Negative) Reason		Al Bawadi	Ghulayl	Bani Malek	South Jeddah Districts	Al Salamah
Cleanliness	Count		1			
	%		6.3%			
Water table level	Count	1				6
	%	10.0%				42.9%
Rain and flood problems	Count					3
	%					21.4%
Social standing of residents	Count		2	1	4	
	%		12.5%	5.6%	25.0%	
Noise level	Count	1		4		1
	%	10.0%		22.2%		7.1%
Traffic flow	Count			2	2	
	%			11.1%	12.5%	
Security	Count		1			
	%		6.3%			
Buildings condition	Count	1	1			
	%	10.0%	6.3%			
Neighbourhood aesthetics	Count		2	2	1	
	%		12.5%	11.1%	6.3%	
Building quality in the neighbourhood	Count	1		1	2	
	%	10.0%		5.6%	12.5%	
Neighbourhood planning	Count	4	4	3	3	1
	%	40.0%	25.0%	16.7%	18.8%	7.1%
Location in or nearby North side of the city	Count		3			
	%		18.8%			
Car parking	Count		1			
	%		6.3%			
Availability of sewage system	Count					1
	%					7.1%
Quality of street paving	Count			1		
	%			5.6%		
Street lighting	Count					1
	%					7.1%
Street width	Count	1		1		
	%	10.0%		5.6%		
Population density	Count		1		2	1
	%		6.3%		12.5%	7.1%
Mixing of activities	Count			2		
	%			11.1%		
Conformity to building convention	Count			1		
	%			5.6%		
Markets and commercial activities	Count	1				
	%	10.0%				
Proximity to services	Count				2	
	%				12.5%	
	Count	10	16	18	16	14
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.27: Cross reference of the five most disliked areas or neighbourhoods in the city of Jeddah and the reasons given

Al-Salamah is one of the North areas of the city. People mentioned it mainly because of the high water table level in this area and the lack of an adequate rain drainage network which leads to much damage to buildings and streets.

Question (9): Mention three things you would like to have in your neighbourhood.

Table (8.28) shows the piling results of responses to question nine. There were many things respondents would like to have in their neighbourhoods. The most important of these were: a neighbourhood facilities centre and community centre and open spaces. Other things people would like to have in their neighbourhood were a high-standard sewage system, street paving and car parking areas. Features like rain and flood drainage system, neighbour interaction and coherence, shaded car parking, street lighting, landscaped features and constant flow of water were also mentioned (see table 8.28).

Thing people like to have in their neighbourhood	Frequency	Percent	Valid Percent
Existence of community centre	25	18.9	20.4
Open spaces	23	17.4	18.7
Availability of sewage system	9	6.8	7.3
Quality of street paving	8	6.1	6.5
Availability of facilities	6	4.5	4.9
Car parking	6	4.5	4.9
Rain and flood drainage system	5	3.8	4.1
Neighbour interaction and coherence	5	3.8	4.1
Shaded car parking	5	3.8	4.1
Street lighting	5	3.8	4.1
Landscape	4	3.0	3.3
Constant flow of water	4	3.0	3.3
Regulations of building type and height	3	2.3	2.4
Proximity to services	3	2.3	2.4
Cleanliness	2	1.5	1.6
Pedestrian area	2	1.5	1.6
Schools location in between houses	2	1.5	1.6
Buildings colour unification	2	1.5	1.6
Proximity to mosques	1	.8	.8
Empty plots	1	.8	.8
District administration office	1	.8	.8
Visibility of neighbourhood entrances	1	.8	.8
Total	123	93.2	100.0
Missing	9	6.8	
Total	132	100.0	

Table 8.28: Things respondents like to have in their neighbourhood.

Question (10): Mention two positive aspects of the traditional neighbourhood you would like to see in your current neighbourhood. For each please give two reasons.

Piling results of responses to question ten shows that respondents in general enjoyed the past and they liked many things from their old neighbourhoods. Social aspects were the most dominant in replies to this question, they liking the old atmosphere and communal rituals such as social interaction and coherence, visits between neighbours, daily gathering of neighbours, neighbourhood mayor and co-operation and participation. In terms of planning and architecture, people mentioned open spaces, proximity of buildings and traditional architecture a few times (see table 8.29).

Aspects	Frequency	Percent	Valid Percent
Social interaction and coherence	15	17.0	17.2
Visits between neighbours	12	13.6	13.8
Neighbours' daily gathering	9	10.2	10.3
Neighbourliness	9	10.2	10.3
Neighbourhood mayor (*Omdah*)	8	9.1	9.2
Neighbour co-operation and participation	7	8.0	8.0
Resident' knowing each other	6	6.8	6.9
Walking	4	4.5	4.6
Children Playing in open spaces and alleyways	3	3.4	3.4
Open spaces	3	3.4	3.4
Proximity of houses	3	3.4	3.4
Most family members Live in one neighbourhood	2	2.3	2.3
Neighbourhood cleanliness	1	1.1	1.1
Simple way of life	1	1.1	1.1
*Hijazy identity	1	1.1	1.1
Residents love to their neighbourhood	1	1.1	1.1
Development of traditional architecture	1	1.1	1.1
Traditional lighting	1	1.1	1.1
Total	87	98.9	100.0
Missing	1	1.1	
Total	88	100.0	

Table 8.29: Positive aspects of the traditional neighbourhood respondents like to see in their current neighbourhood.

*** Hijazy – reference to the Hijaz Region in Saudi Arabia.**

The most important reasons for positive aspects of the traditional neighbourhood which respondents would like to have in their current neighbourhoods are social co-operation and participation and neighbour interaction and coherence, which will enable a good living environment and security. Other reasons were religious duty, the presence of respected neighbourhood figurehead and neighbourhood liveliness (see table 8.30).

Reasons	Frequency	Percent	Valid Percent
Society co-operation and participation	41	23.3	23.2
Neighbour interaction and coherence	30	17.0	17.4
Responsibility of residents in providing a social environment	22	12.5	12.8
Social coherence	20	11.4	11.6
Security	18	10.2	10.4
Religious duty	10	5.7	5.8
Presence of respectable neighbourhood figurehead	8	4.5	4.7
Liveliness	8	4.5	4.7
Health benefits	4	2.3	2.4
Recreation and entertainment	3	1.7	1.7
Secured environment for children to play	3	1.7	1.7
Feeling of kinship	3	1.7	1.7
Pedestrians area	1	.6	.6
Feeling of belonging	1	.6	.6
Total	172	97.8	100.0
Missing	4	2.2	
Total	176	100.0	

Table 8.30: Reasons for positive aspects of the traditional neighbourhood people would like to see in their current neighbourhood.

Table (8.31) cross-relates the five most liked aspects of the traditional neighbourhood people would like to see in their current neighbourhood and the reasons given. Respondents see social interaction and coherence as a positive aspect from the traditional neighbourhood that would improve their current neighbourhood in increasing residents' consideration to provide good living environment thereby enhancing social co-operation and participation and leading to security for the neighbourhood. They also think that visits between neighbours is a positive aspect they would like to see because it enhances social co-operation and participation, fosters more social coherence and increases neighbours' interaction (see Appendix B figure B.3).

Finally respondents would like to see a return of the traditional role of the neighbourhood mayor (*Omdah*) considering it to be important to have a respectable figure in the neighbourhood who can do many things for the community and oversee more neighbourhood interaction and coherence (see Chapter Seven section 7.4.1.2).

Reasons		Social interaction and coherence	Visits between neighbours	Neighbour daily gathering	Neighbourliness	Neighbourhood mayor
Religious duty	Count	3	3		3	
	%	10.0%	12.5%		16.7%	
Neighbour interaction and coherence	Count	2	4	5	3	5
	%	6.7%	16.7%	27.8%	16.7%	31.3%
Society co-operation and participation	Count	7	8	6	6	2
	%	23.3%	33.3%	33.3%	33.3%	12.5%
Responsibility of residents in providing a social environment	Count	9	2		2	
	%	30.0%	8.3%		11.1%	
Presence of respectable neighbourhood figurehead	Count					8
	%					50.0%
Social coherence	Count	3	5	4	1	
	%	10.0%	20.8%	22.2%	5.6%	
Recreation and entertainment	Count	1	1	1		
	%	3.3%	4.2%	5.6%		
Security	Count	4	1	1	3	1
	%	13.3%	4.2%	5.6%	16.7%	6.3%
Liveliness	Count	1				
	%	3.3%				
Feeling of kinship	Count			1		
	%			5.6%		
Total	Count	30	24	18	18	16
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.31: Cross reference the five most liked aspects of the traditional neighbourhood people like to see in their current neighbourhood and the reasons given.

9.4.3 Information about the City

Question (11): Mention three important features that give identity to the city of Jeddah. For each please give two reasons why.

It found that the important features that give identity to the city of Jeddah relate to the natural environment such as location on the Red Sea and also to other geographical, environmental and climatic factors. Other important features relate to the city role and function such as commercial and tourist activities, and historical city role as a gateway to the two Holy Cities of Makkah Al-Mukarramah and Al-Madenah Al-Munawarah. The built environment and architecture of the city with its elements also gives the city part of its identity through some features mentioned like traditional architecture, modern architecture and sculptures (see Appendix C figure C.14). Other features with social and cultural significance were less important (see table 8.32).

Type of Feature		Feature	Frequency	Percent	Valid Percent
Natural Environment and Location		Location on the red sea	35	26.5	27.1
		Geography and climate	7	5.3	5.4
	Total		**42**	**31.8**	**32.5**
City Role and Economy		Commercial activities	22	16.7	17.1
		Gateway To Makkah Al-Mukarramah and Al-Madenah Al-Munawarah	10	7.6	7.8
		Tourist activities	6	4.5	4.7
		The port	1	.8	.8
	Total		**39**	**29.6**	**30.4**
Built Environment and Architecture		Traditional town	11	8.3	8.5
		Modern architecture	11	8.3	8.5
		Sculptures	8	6.1	6.2
		Sea Cornish	5	3.7	3.8
		Al Malek Abdulaziz Street	1	.8	.8
		City planning	1	.8	.8
		National Commercial Bank Building	1	.8	.8
	Total		**38**	**28.8**	**29.4**
Socio-Cultural Environment		Customs and traditions	6	4.3	4.5
		Open-minded society	1	.8	.8
		Social coherence	1	.8	.8
		Goodness of residents	1	.8	.8
		Variety of residents social standing	1	.8	.8
	Total		**10**	**7.5**	**7.7**
Total			129	97.7	100.0
Missing			3	2.3	
Total			132	100.0	

Table 8.32: Most important features that give identity to the city of Jeddah

The most dominant reasons behind the importance of features have an economic dimension, like to activate tourism and, commerce as a revenue source for the city. People have seen tourism and commercial activities become a part of the city identity, providing sources of money to develop the city. Respondents mentioned reasons that related to the city planning dimension such as city development, urban environment identity, the city's overall appearance and legibility of its streets network. Reasons of an aesthetic dimension were also mentioned (see table 8.33).

Table (8.34) shows that most of the aforesaid features are important for many reasons. For example the location of the city affects its identity in that being a port on the Red Sea is a source of revenue. Also the beauty of the natural environment of the location has had a great role in stimulating tourism and has led to the city being named the *Bride of the Red Sea*.

Dimensions		Reasons	Frequency	Percent	Valid Percent
Economic		Activate tourism	34	12.9	13.3
		Revenue source for the city	26	9.8	10.2
		Activate commercial	25	9.5	9.8
	Total		**85**	**32.2**	**33.3**
Planning		City development	22	8.3	8.6
		Urban environment identity	8	3.0	3.1
		City identity	6	2.3	2.3
		City's overall appearance	8	3.0	3.1
		Legibility of street	5	1.9	2.0
		Availability of services	2	.8	.8
		Quality of services	1	.4	.4
	Total		**52**	**19.7**	**20.3**
Aesthetic		City aesthetics	31	11.7	12.1
		Traditional buildings aesthetic	5	1.9	2.0
	Total		**36**	**13.6**	**14.1**
Architectural		Architectural identity	10	3.8	3.9
		Design	6	2.3	2.3
		Development of traditional architecture	4	1.5	1.6
		Convenience to a modern way of Life	4	1.5	1.6
		Decorative and architectural elements	1	.4	.4
	Total		**25**	**9.5**	**9.8**
Psychological		Recreation and entertainment for all family members	8	3.0	3.1
		Correlation with the sea	7	2.7	2.7
		Liveliness	4	1.5	1.6
		Security	2	.8	.8
		Tranquillity	1	.4	.4
	Total		**22**	**8.4**	**8.6**
Religious		City religious role	17	6.4	6.6
	Total		**17**	**6.4**	**6.6**
Socio-cultural		Naming the city 'the Bride of the Red Sea'	5	1.9	2.0
		Original heritage	5	1.9	2.0
		Society co-operation and participation	4	1.5	1.6
		Society education and experience	3	1.1	1.2
		Social interaction	1	.4	.4
	Total		**18**	**6.8**	**7.2**
Environmental		Diet of fish	1	.4	.4
	Total		**1**	**.4**	**.4**
Total			256	97.0	100.0
Missing			8	3.0	
Total			264	100.0	

Table 8.33: Reasons for the most important features that give identity to the city of Jeddah

The City's location in the heart of Hijaz Region and its function as a port has great role in activating commerce. Commercial activity is another feature also important in activating tourism, commerce and as one of the reasons for the city's development. Piling results also shows that the traditional town is an important feature that give the city part of its identity because it reflects the architectural identity, the original heritage and source to develop our architecture.

Dimensions		Reasons		Location on the Red Sea	Commercial activities	Traditional town	Modern architecture	Gateway to Makkah Al-Mukarramah and Al-Madenah Al-Munawarah
Economic		Revenue source for the city	Count	17	8			
			%	45.9%	26.7%			
		Activate commerce	Count	5	10	1		3
			%	13.5%	33.3%	100.0%		100.0%
		Activate tourism	Count	15	12			
			%	40.5%	40.0%			
	Total		**Count**	**37**	**30**	**1**		**3**
			%	**100.0%**	**100.0%**	**100.0%**		**100.0%**
Socio-cultural		Original heritage	Count			4		
			%			33.3%		
		Architectural identity	Count			6		
			%			50.0%		
		Society education and experience	Count					2
			%					100.0%
		Naming the city 'the Bride of the Red Sea'	Count	5				
			%	100.0%				
		City identity	Count			2		
			%			16.7%		
	Total		**Count**	**5**		**12**		**2**
			%	**100.0%**		**100.0%**		**100.0%**
Religious		City religious role	Count	1				10
			%	100.0%				100.0%
	Total		**Count**	**1**				**10**
			%	**100.0%**				**100.0%**
Environmental		Diet of fish	Count	1				
			%	100.0%				
	Total		Count	1				
			%	100.0%				
Psychological		Recreation and entertainment	Count	2	2			
			%	28.6%	50.0%			
		Correlation with the sea	Count	4				
			%	57.1%				
		Tranquillity	Count	1				
			%	14.3%				
		Liveliness	Count		2			2
			%		**50.0%**			**100.0%**
	Total		**Count**	**7**	**4**			**2**
			%	100.0%	100.0%			100.0%
Architectural		Design	Count				2	
			%				40.0%	
		Development of traditional architecture	Count			4		
			%			44.4%		
		Traditional buildings aesthetic	Count			4		
			%			44.4%		
		Convenience to a modern way of life	Count				3	
			%				60.0%	
		Decorative and architectural elements	Count			1		
			%			**11.1%**		
	Total		**Count**			**9**	**5**	
			%			100.0%	100.0%	
Planning		City's overall appearance	Count	1	2		3	
			%	5.3%	20.0%		18.8%	
		City aesthetics	Count	15			5	
			%	78.9%			31.3%	
		City development	Count	2	8		8	1
			%	10.5%	80.0%		50.0%	50.0%
		Urban environment identity	Count	1				1
			%	5.3%				50.0%
	Total		**Count**	**19**	**10**		**16**	**2**
			%	**100.0%**	**100.0%**		**100.0%**	**100.0%**

Table 8.34: Cross reference of the five most important features that give identity to the city of Jeddah and the reasons given

Question (12): Mention three important features that give identity to the traditional city of Jeddah. For each please give two reasons.

It has been found that various features give identity to the traditional city of Jeddah. The most important features relate to the built environment and architecture of the traditional city of Jeddah, such as unification of building systems, traditional urban fabric, the traditional bay window (*Rawshan*) and the small size of the traditional city. Other important features related to natural environment and location such as the location on the Red Sea. Socio-cultural features such as social life system, customs and traditions, a simple way of life and daily life system also gave the old town part of its identity. Other features related to the city role and economy were less important from the point of view of respondents (see table 8.35).

Type of feature		Feature	Frequency	Percent	Valid percent
		Unification of building system	28	21.2	22.8
		Traditional urban fabric	13	9.8	10.6
		Bay window (*Rawshan*)	9	6.8	7.2
		City size	4	3.1	3.3
		Adaptation to environment and climate	4	3.1	3.3
		Local building materials	1	.8	.8
	Total		**59**	**44.8**	**48.0**
Natural Environment and Location		**The sea**	25	18.9	20.3
	Total		**25**	**18.9**	**20.3**
Socio-Cultural Environment		**Social life system**	12	9.1	9.8
		Customs and traditions	5	3.8	4.1
		Simple way of life	3	2.3	2.4
		Daily life system	2	1.5	1.6
	Total		**22**	**16.7**	**17.9**
City Role and Economy		**Gateway to Makkah Al-Mukarramah and Al-Madenah Al-Munawarah**	17	12.9	13.8
	Total		**17**	**12.9**	**13.8**
Total			123	93.2	100.0
Missing			9	6.8	
Total			132	100.0	

Table 8.35: Important features that give identity to the traditional city of Jeddah.

Table (8.36) shows that the most dominant reasons behind the importance of features are related to a planning dimension. For example the role of the feature in developing urban environment's identity, the role of the feature in enhancing the urban and architectural environment, the role of the feature in providing a good living environment and the role of the feature in developing the city identity.

Other important reasons have an aesthetic dimension, for example how much the features add to the city aesthetics, people's appreciation of the aesthetic values of the features, and the role of the features in a buildings' elevation.

People see the role of a feature in developing the architecture identity as an important reason behind the features that give identity to the traditional city in addition to other architectural dimension reasons such as area utilisation, use of local building materials and design convenience to suit people's needs.

Respondents mentioned the social dimension as one of the important dimensions behind their appraisal of a feature. Many reasons were mentioned in this group such as the role of the feature in enhancing neighbours and social interaction.

Reasons in the economic dimension are also important, in that people also mentioned the role of any feature in activating the trade and commerce or as a source of revenue for the city. People also mentioned many other important reasons such as en environmental, religious, cultural and psychological reasons.

Dimension		Reasons	Frequency	Percent	Valid Percent
Planning		Urban environmental identity	9	3.4	3.7
		Enhance urban and architecture environment	8	3.1	3.3
		Provide good living environment	8	3.1	3.3
		City identity	6	2.3	2.4
		Open spaces hierarchy	6	2.3	2.4
		Skyline	1	.4	.4
	Total		**38**	**14.6**	**15.5**
		City aesthetic	21	8.1	8.5
		Aesthetic values	12	4.1	4.9
		Elevation aesthetics	5	1.9	2.1
	Total		**38**	**14.6**	**15.5**
Architectural		Architectural identity	17	6.5	6.9
		Utilisation of area in design	7	2.7	2.8
		Local building materials	6	2.3	2.4
		Design convenience to people needs	4	1.5	1.6
		Angles of vision	1	.4	.4
	Total		**35**	**13.4**	**14.1**
Socio-cultural		Communication with other cultures	10	3.8	4.1
		Neighbour interaction and coherence	8	3.1	3.3
		Social interaction	8	3.1	3.3
		Privacy level	7	2.7	2.8
		Way of live	5	1.9	2.0
		Customs and traditions	5	1.9	2.0
		Society education and experience	4	1.5	1.6
	Total		**47**	**17.0**	**19.1**
Economic		Activate commerce	18	6.9	7.4
		Revenue source for the city	14	5.3	5.7
	Total		**32**	**15.2**	**13.1**
Environmental		Adaptation to environment and climate	13	4.9	5.3
		Linking people to the environment	5	1.9	2.0
		Consideration of orientation	4	1.5	1.6
		Ventilation	3	1.1	1.2
		Electricity dependency	2	.8	.8
		Lighting	1	.4	.4
	Total		**28**	**10.6**	**11.3**
Religious		City religious role	16	6.2	6.6
	Total		**16**	**6.2**	**6.6**
Psychological		Feeling of kinship	6	2.3	2.4
		Feeling of belonging	3	1.1	1.2
		Sentimental feeling	1	.4	.4
	Total		**10**	**3.8**	**4.0**
Environmental		Diet of fish	2	.8	.8
	Total		**2**	**.8**	**.8**
		Total	246	93.2	100.0
		Missing	18	6.8	
		Total	264	100.0	

Table 8.36: Reasons for the most important features that give identity to the traditional city of Jeddah.

Table (8.37) shows the five most important features that give identity to the traditional city of Jeddah with reasons for each. Reasons behind the most important feature that gives identity to the old town of Jeddah, which is the unified building system, are that it reflects architectural identity, reflects the city aesthetics, gives a feeling of kinship between people and uses local building materials.

Reasons behind the second important feature, the Red Sea, are that it is a source of revenue for the city, is a generator of city aesthetics and character, activates commerce and trade and is a route to other cultures.

The city's role as a gateway to Makkah Al-Mukarramah and Al-Madenah Al-Munawarah is the third important feature, relating to reasons like religious role, activation of commerce and communication with other cultures.

The fourth important feature is the traditional urban fabric. Important reasons behind this are that it is been adapted to the specific environment and climate of the place, its area utilisation, hierarchy of open spaces and its social interaction.

Social life system is the fifth important feature that gives identity to the traditional city of Jeddah. It is characterised by many ancient customs and traditions, provides good living environment, affects the urban environmental identity and enhances urban and architectural environment.

Reasons		Unification of building system	The sea	Gateway to Makkah Al-Mukarramah and Al-Madenah Al-Munawarah	Traditional urban fabric	Social life system
Revenue source for the city	Count		14			
	%		28.0%			
Activate commerce	Count		9	9		
	%		18.0%	26.5%		
Architectural identity	Count	13				
	%	23.2%				
Society education and experience	Count			2		2
	%			5.9%		8.3%
Communication with other cultures	Count		6	4		
	%		12.0%	11.8%		
City identity	Count	2				1
	%	3.6%				4.2%
City religious role	Count			16		
	%			47.1%		
Diet of fish	Count		2			
	%		4.0%			
Adaptation to environment and climate	Count	3			10	
	%	5.4%			38.5%	
Linking people to the environment	Count		1			
	%		2.0%			
Consideration of orientation	Count		3	1		
	%		6.0%	2.9%		
Neighbour interaction and coherence	Count				3	2
	%				11.5%	8.3%
Way of life	Count		3			
	%		6.0%			
Customs and traditions	Count					5
	%					20.8%
Social interaction	Count	1			3	1
	%	1.8%			11.5%	4.2%
Feeling of belonging	Count	1				
	%	1.8%				
Feeling of kinship	Count	5				
	%	8.9%				
Utilisation of area in design	Count	1			4	
	%	1.8%			15.4%	
Design convenience to people needs	Count	4				
	%	7.1%				
Local building materials	Count	5				
	%	8.9%				
Skyline	Count	1				
	%	1.8%				
Angles of vision	Count				1	
	%				3.8%	
Hierarchy of open spaces	Count	1			4	1
	%	1.8%			15.4%	4.2%
Urban environmental identity	Count			2		4
	%			5.9%		16.7%
Provide good environment	Count				1	5
	%				3.8%	20.8%
Enhance urban and architecture environment	Count					3
	%					12.5%
Elevation aesthetics	Count	5				
	%	8.9%				
Aesthetic values	Count	5				
	%	8.9%				
City aesthetic	Count	9	12			
	%	16.1%	24.0%			
Total	Count	56	50	34	26	24
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.37: Cross reference of reasons and important features that give identity to the traditional city of Jeddah.

Question (13): Mention three streets you like in the city of Jeddah. For each please give two reasons.

Piling results of question thirteen shows that the most preferred streets are new streets within the contemporary part of the city. Al-Tahleyah Street, Al-Malek Road (see Appendix C figure C.3), Al-Madenah Al-Munawarah Road (see figure 7.44) and Al-Amir Sultan Street all sharing common characteristics, such as modern design and generous width. Other streets mentioned by people were Al-Cornish road (see Appendix C figure C.1), Al-Andalus street and Sari street (see table 8.38). The author has observed that most of the streets mentioned are in the North side of the city, which contains most of the new areas of the city.

Some respondents mentioned important streets in the city centre within the traditional city such as Al-Malek Abdulaziz street, Al-Alawi street (see figure7.19) and Qabil street (see Appendix B figure B.4).

Street	Frequency	Percent	Valid Percent
Al-Tahleyah St	34	25.8	26.0
Al-Malek Road	19	14.4	14.5
Al-Madenah Al Munawarah Road	9	6.8	6.9
Al-Amir Sultan St	9	6.8	6.9
Al-Cornish Road	8	6.1	6.1
Al-Andalus St	8	6.1	6.1
Sari St	8	6.1	6.1
Al-Amir Fahd St	7	5.3	5.3
Al-Haramain Road	6	4.5	4.6
Al-Amir Majed St	6	4.5	4.6
Al-Malek Abdulaziz St	5	3.8	3.8
Palestine St	2	1.5	1.5
Walee Al Ahd St	2	1.5	1.5
Al-Alawi St	2	1.5	1.5
Makkah Al-Mukarramah Al Mukarramah Road	1	.8	.8
Heraa St	1	.8	.8
Abdullah Al Sulayman St	1	.8	.8
Al-Rawdah St	1	.8	.8
Al-Falah St	1	.8	.8
Qabil St	1	.8	.8
Total	131	99.2	100.0
Missing	1	.8	
Total	132	100.0	

Table 8.38: Most liked streets in the city of Jeddah.

Table (8.39) shows that streets were preferred for many reasons, such as street width which have the major effect on people's preference of a street because the cars became the unit of measurement. Streets that have a variety of shops and services are also preferred by respondents because this helps to make the street more lively and pleasing. Landscaping is another quality that people recognise and appreciate. Aesthetics of the buildings looking onto the street is another important criteria because buildings are seen to be an integral part of the street environment. At the same time, reasons such as traffic flow, accessibility to all areas and liveliness have all been found to be important in people's evaluation of these streets.

Reason	Frequency	Percent	Valid Percent
Street width	55	20.8	21.0
Variety of shops and services	38	14.4	14.5
Landscape	34	12.9	13.0
Elevations aesthetic	26	9.8	9.9
Traffic flow	19	7.2	7.3
Accessibility to all distracts	19	7.2	7.3
Liveliness	16	6.1	6.1
Street lighting	9	3.4	3.4
Angles of vision	7	2.7	2.7
Traffic lights	7	2.7	2.7
Pedestrians area	5	1.9	1.9
Visual comfort	5	1.9	1.9
Correlation with the sea	5	1.9	1.9
Sculptures	4	1.5	1.5
Sentimental feeling	4	1.5	1.5
Cleanliness	3	1.1	1.1
Traditional buildings aesthetic	3	1.1	1.1
Noise level	1	.4	.4
Tranquillity	1	.4	.4
Quality of street paving	1	.4	.4
Total	262	99.2	100.0
Missing	2	.8	
Total	264	100.0	

Table 8.39: Reasons for the most like streets in the city of Jeddah.

Table (8.40) shows reasons for the five most important streets. Al-Tahleyah Street was preferred because of the variety of shops and services on the street, it has distinctive buildings on both sides, a well designed landscape and is lively and wide. Al-Malek road was preferred for its width and because it has a well designed landscape. Al-Madenah Al-Munawarah road was preferred because its width, accessibility to all areas, visual comfort through driving, traffic flow and street lighting quality.

Reasons		Al-Madenah Al-Munawarah Road	Al-Cornish Road	Al-Malek Road	Al-Tahleyah St.	Al-Amir Sultan St.
Cleanliness	Count			3		
	%			7.9%		
Landscape	Count		3	12	9	1
	%		18.8%	31.6%	13.2%	5.6%
Pedestrian area	Count		1	1		
	%		6.3%	2.6%		
Sculptures	Count		3			
	%		18.8%			
Noise level	Count					1
	%					5.6%
Visual comfort	Count	2		2		
	%	11.1%		5.3%		
Traffic flow	Count	2		2	2	5
	%	11.1%		5.3%	2.9%	27.8%
Correlation with the sea	Count		5			
	%		31.3%			
Liveliness	Count	1			9	
	%	5.6%			13.2%	
Elevation aesthetic	Count			1	19	6
	%			2.6%	27.9%	33.3%
Angles of vision	Count	1	4			
	%	5.6%	25.0%			
Street lighting	Count	2		2	1	1
	%	11.1%		5.3%	1.5%	5.6%
Street width	Count	5		13	7	1
	%	27.8%		34.2%	10.3%	5.6%
Accessibility to all districts	Count	3		1	1	
	%	16.7%		2.6%	1.5%	
Few traffic lights	Count	1		1		3
	%	5.6%		2.6%		16.7%
Variety of shops and services	Count	1			20	
	%	5.6%			29.4%	
Total	Count	18	16	38	68	18
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.40: Reasons for the five most preferred streets.

Al-Amir Sultan Street was preferred because it has distinctive buildings on both sides, the traffic flow is not heavy and it has very few traffic lights. Al-Cornish road was preferred for the street zigzag, landscape and it has a lot of sculptures (see figure 8.3).

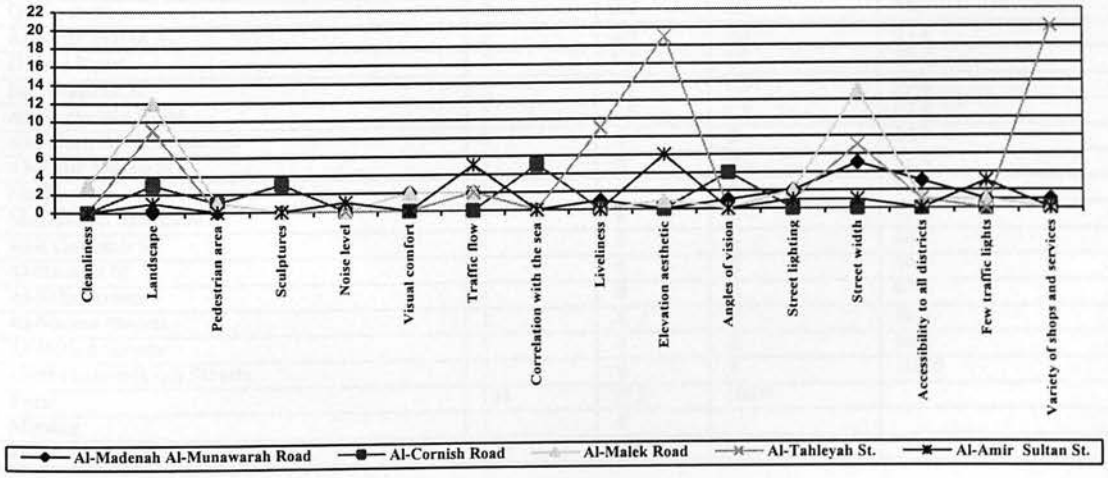

Figure 8.3: Reasons for the five most important streets.

Question (14): Mention three streets you do not like in the city of Jeddah. For each please give two reasons.

Streets are places of movement where people can meet, talk, sit and stand, many activities and express themselves publicly. A street is an extension of the house, it is where the children learn and discover the world; it is an outdoor space and where people contact each other. If these qualities are missing or not clear then the street will not satisfy the needs of its users (see Chapter Five).

Piling results of question fourteen shows that streets people dislike are distributed throughout the city (see figure 7.41). The streets which are most disliked by people are Heraa street, Al-Amir Fahd street (see Appendix C figure C.2), Al-Makaronah street and Palestine street. Other streets such as Makkah Al-Mukarramah road, Ben Laden street and Al-Mahjar Street were also poorly appreciated (see table 8.41).

Streets	Frequency	Percent	Valid Percent	Cumulative Percent
Heraa St	21	15.9	16.0	16.0
Al-Amir Fahd St	16	12.1	12.2	28.2
Al-Makaronah St	15	11.4	11.5	39.7
Palestine St	13	9.8	9.9	49.6
Makkah Al Mukarramah Road	11	8.3	8.4	58.0
Ben Laden St	9	6.8	6.9	64.9
Al-Mahjar St	7	5.3	5.3	70.2
Al-Madenah Al Munawarah Road	6	4.5	4.6	74.8
Al-Jameah St	5	3.8	3.8	78.6
Al-Television St	3	2.3	2.3	80.9
Bani Malek St	3	2.3	2.3	83.2
Quraysh St	3	2.3	2.3	85.5
Al Amir Majed St	3	2.3	2.3	87.8
Obhur Road	2	1.5	1.5	89.3
Ba Khashab St	2	1.5	1.5	90.8
Al-Haramain Road	2	1.5	1.5	92.4
Abdullah Al Sulayman St	1	.8	.8	93.1
Al-Amir Metab St	1	.8	.8	93.9
Stadium St	1	.8	.8	94.7
Mustafa Al Menkabo St	1	.8	.8	95.4
Abu Oabidah St	1	.8	.8	96.2
Al-Kuwait St	1	.8	.8	96.9
Al-Safa Streets	1	.8	.8	97.7
Al-Naeem Streets	1	.8	.8	98.5
Al-Ballad Streets	1	.8	.8	99.2
Al-Muhammdyyah Streets	1	.8	.8	100.0
Total	131	99.2	100.0	
Missing	1	.8		
Total	132	100.0		

Table 8.41: Most disliked streets in the city of Jeddah.

Reasons behind a street being disliked mainly concerned traffic problems and congestion for most of the day, traffic lights, danger to pedestrians and traffic accidents. Other reasons concerned street character such as width, quality of street paving, market and commercial activities along the street, mixing of activities and street lighting. Factors such as the overall appearance of the street and the aesthetics of the buildings elevations on the street are also mentioned (see table 8.42).

(Negative) Reason	Frequency	Percent	Valid Percent
Traffic flow	70	26.5	26.7
Street width	40	15.2	15.3
Traffic lights	40	15.2	15.3
Quality of street paving	24	9.1	9.2
Markets and commercial activities	24	9.1	9.2
Mixing of activities	17	6.4	6.5
Pedestrian crossing	10	3.8	3.8
Street lighting	7	2.7	2.7
Traffic accidents	7	2.7	2.7
Overall appearance of street	7	2.7	2.7
Elevation aesthetic	3	1.1	1.1
Service road	3	1.1	1.1
Continuity of street	3	1.1	1.1
Mixing of buildings types and heights	2	.8	.8
Legibility of street	2	.8	.8
Street zigzag	2	.8	.8
Visual comfort	1	.4	.4
Total	262	99.2	100.0
Missing	2	.8	
Total	264	100.0	

Table 8.42: Reasons for the most disliked streets in the city of Jeddah.

Table (8.43) shows reasons for the five least liked streets. Heraa Street was disliked because of the traffic jam, a crowding of market and commercial activities on it and mixing of activities. Al-Amir Fahd street was disliked because the number of traffic lights along the street, traffic jams and dangers to pedestrians crossing from one side to the other. Al-Makaronah street was disliked because of traffic jams, markets and commercial activities along the street and for being too narrow (see figure 8.4).

(Negative) Reasons		Makkah Al Mukarramah Road	Al Amir Fahd Street	Heraa St	Palestine Street	Al Makaronah Street
Street continuity	Count					1
	%					3.3%
Overall appearance of the street	Count	2	1			
	%	9.1%	3.1%			
Service road	Count	1	1	1		
	%	4.5%	3.1%	2.4%		
Traffic accidents	Count		2			
	%		6.3%			
Markets and commercial activities	Count	1	1	9	1	9
	%	4.5%	3.1%	21.4%	3.8%	30.0%
Traffic lights	Count	6	14		12	2
	%	27.3%	43.8%		46.2%	6.7%
Legibility of street	Count	1	1			
	%	4.5%	3.1%			
Mixing of activities	Count	1		8		1
	%	4.5%		19.0%		3.3%
Street width	Count	1	1	7	6	6
	%	4.5%	3.1%	16.7%	23.1%	20.0%
Street lighting	Count	1	1			
	%	4.5%	3.1%			
Quality of street paving	Count	3				
	%	13.6%				
Elevations aesthetic	Count	1				
	%	4.5%				
Traffic flow	Count	3	8	17	6	10
	%	13.6%	25.0%	40.5%	23.1%	33.3%
Pedestrian crossing	Count	1	2		1	1
	%	4.5%	6.3%		3.8%	3.3%
Total	Count	22	32	42	26	30
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.43: Cross reference the five most disliked streets in the city of Jeddah and the reasons given.

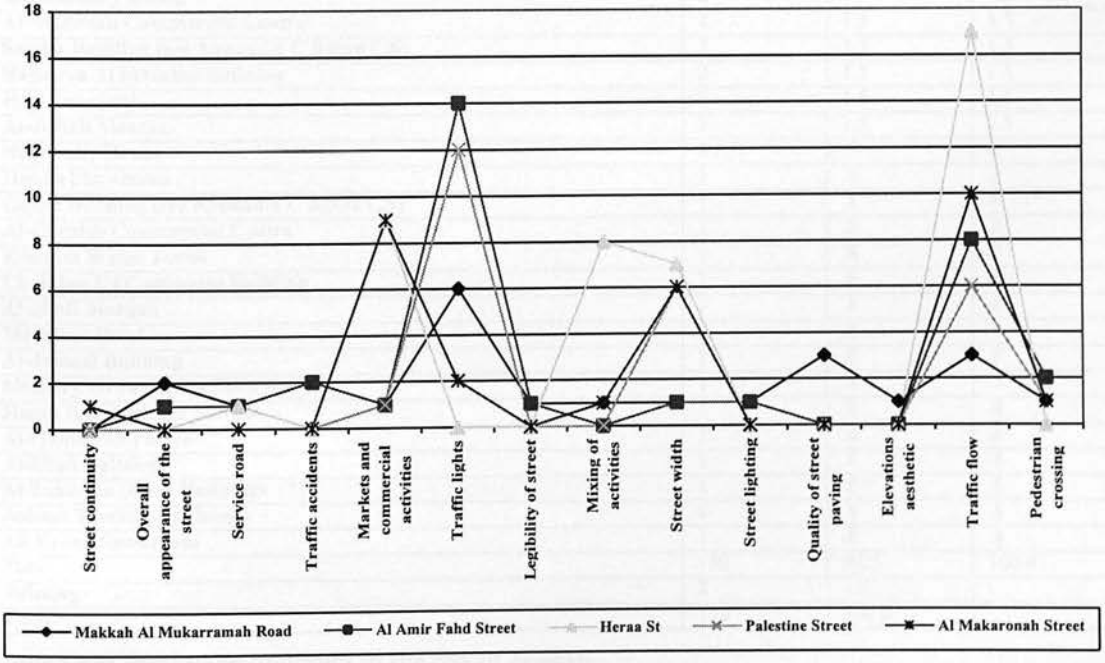

Figure 8.4: Reasons for the five most disliked streets in the city of Jeddah.

Question (15): Mention three buildings you like in the city of Jeddah. For each please give two reasons.

Piling results show that the most preferred buildings are National Commercial Bank building (see Appendix C figure C.4), Al-Mahmal Commercial Centre (see figure 7.47), Islamic Development Bank building and Lylaty Hall. All these are new modern buildings. Although many traditional and historic buildings were mentioned like Nasef house (figure 7.33), Baeshen house (see Appendix B figure B.2), Al-Shorbatly house (see Appendix B figure B.1), Noorwally house (see figure7.34) and Al-Shafi mosque, they were not preferred by every one (see table 8.44).

Building	Frequency	Percent	Valid Percent
National Commercial Bank Building	36	27.3	27.7
Al-Mahmal Commercial Centre	10	7.6	7.7
Islamic Development Bank Building	10	7.6	7.7
Lylaty Hall	6	4.5	4.6
Al-Jamjoom Centre	5	3.8	3.8
King Saud Mosque	4	3.0	3.1
Nasef House	4	3.0	3.1
Sheraton Hotel (see Appendix C figure C.5)	3	2.3	2.3
Saudi American Bank building	3	2.3	2.3
Al-Butat Villas (see Appendix C figure C.7)	3	2.3	2.3
Lexus Showroom	3	2.3	2.3
Al-Farsi Plaza	3	2.3	2.3
Environmental Design College Building	3	2.3	2.3
Juffali Building	3	2.3	2.3
Seaport Tower	2	1.5	1.5
Dallah Tower	2	1.5	1.5
Baeshen House	2	1.5	1.5
Al-Shorbatly House	2	1.5	1.5
Al-Madenah Commercial Centre	2	1.5	1.5
Saudia Building (see Appendix C figure C.6)	2	1.5	1.5
Rawaaya Al Mktabat Building	2	1.5	1.5
Hajj Terminal	2	1.5	1.5
Al-Juffali Mosque	2	1.5	1.5
Noorwally House	1	.8	.8
Honda Showroom	1	.8	.8
Queen Building (see Appendix C figure C.9)	1	.8	.8
Al-Cornish Commercial Centre	1	.8	.8
Khozam Water Tower	1	.8	.8
Chamber Of Commerce Building	1	.8	.8
Al-Shafi Mosque	1	.8	.8
Meridian Hotel	1	.8	.8
Al-Jamaal Building	1	.8	.8
Ministry Of Foreign Affairs Building	1	.8	.8
Heraa International Market	1	.8	.8
Al-Hammrah Palace	1	.8	.8
Al-Shafi Building	1	.8	.8
Al Tahleyah Street Buildings	1	.8	.8
Jeddah Traditional Houses	1	.8	.8
Ali Redah Showroom	1	.8	.8
Total	130	98.5	100.0
Missing	2	1.5	
Total	132	100.0	

Table 8.44: Most liked buildings in the city of Jeddah.

When we look at the reasons for the preference of a building, table (9.45) shows that these are mostly concerned with the elevations' aesthetics, being a landmark, the design of the building, building size and general aesthetic value.

A building could be preferred too for its finishing quality, its location, transformation of traditional architecture elements, simplicity, use of modern building materials, building mass and ratio, being part of the heritage, integration between building and landscape and development of traditional architecture. Reasons such as adaptation to environment and climate, safety, use of local building materials and design convenience for a Saudi family were also mentioned but were not dominant.

Reasons	Frequency	Percent	Valid Percent
Elevation aesthetics	51	19.3	19.8
Landmark	31	11.7	12.0
Design	26	9.8	10.1
Size of building	25	9.5	9.7
Aesthetic values	21	8.0	8.1
Finishing quality	15	5.7	5.8
Distinguished location	13	4.9	5.0
Transformation of traditional architectural elements	10	3.8	3.9
Simplicity	7	2.7	2.7
Modern building materials	6	2.3	2.3
Building mass and ratio	6	2.3	2.3
Original heritage	5	1.9	1.9
Integration between building and the landscape elements	5	1.9	1.9
Development of traditional architecture	5	1.9	1.9
Interior open space	5	1.9	1.9
Decorative and architectural elements	5	1.9	1.9
Exterior spaces consideration	4	1.5	1.6
Sentimental feeling	4	1.5	1.6
Tranquillity	3	1.1	1.2
Adaptation to environment and climate	2	.8	.8
Safety	2	.8	.8
Local building materials	2	.8	.8
Design convenience for a Saudi family	1	.4	.4
Lighting level	1	.4	.4
Traditional buildings aesthetic	1	.4	.4
Skyline	1	.4	.4
Building transparency	1	.4	.4
Total	258	97.7	100.0
Missing	6	2.3	
Total	264	100.0	

Table 8.45: Reasons for the most like buildings in the city of Jeddah.

Table (8.46) shows that a building could be more preferred for one major reason such as being unique, for example the National Commercial Bank which is a new and modern building was preferred for being a landmark and having distinctive elevations (see

Appendix C figure C.4), while Al- Mahmal Commercial Centre was preferred for its design and its elevations. A building could be preferred for an accumulation of many reasons. For example, Lylaty hall was preferred for the finishing quality, its design and elevations. The Islamic Development Bank was preferred because it is a landmark, transforms traditional architectural elements in its building design, has a good quality finish and for its good design. Al-Jamjoom Centre was preferred because it is a large building, its distinguished location and the use of modern building materials (see Appendix C figure C.10).

Reasons		National Commercial Bank Building	Islamic Development Bank Building	Al-Mahmal Commercial Centre	Lylaty Hall	Al-Jamjoom Centre
Exterior spaces consideration	Count			1	1	
	%			5.6%	8.3%	
Integration between building and the landscape elements	Count	1	1			
	%	1.4%	5.0%			
Simplicity	Count	3				
	%	4.2%				
Landmark	Count	23	4			
	%	31.9%	20.0%			
Quality of finishes	Count	4	2	2	2	
	%	5.6%	10.0%	11.1%	16.7%	
Design	Count	6	2	7	2	
	%	8.3%	10.0%	38.9%	16.7%	
Development of traditional architecture	Count		1			
	%		5.0%			
Elevation aesthetics	Count	21	1	5	2	1
	%	29.2%	5.0%	27.8%	16.7%	10.0%
Lighting level	Count	1				
	%	1.4%				
Aesthetic values	Count	3	4		2	2
	%	4.2%	20.0%		16.7%	20.0%
Building size	Count	6		2		5
	%	8.3%		11.1%		50.0%
Distinguished location	Count	3		1		1
	%	4.2%		5.6%		10.0%
Modern building materials	Count				1	1
	%				8.3%	10.0%
Interior open space	Count	1				
	%	1.4%				
Building mass and ratio	Count		2			
	%		10.0%			
Transformation of traditional architectural elements	Count		3		2	
	%		15.0%		16.7%	
Total	Count	72	20	18	12	10
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.46: Cross reference the five most like building in the city of Jeddah and reasons given.

Question (16): Mention three buildings you do not like in the city of Jeddah. For each please give two reasons.

Question sixteen shows that there were indeed many buildings that were disliked by people. Most of the buildings mentioned were modern dating from the late sixties. These buildings have different uses such as residential commercial, offices, etc (see table 8.47).

Building	Frequency	Percent	Valid Percent
Squatter Houses	11	8.3	9.1
La Elah Ela Allah Building	10	7.6	8.3
Juffali Building	9	6.8	7.4
The General Housing	8	6.1	6.6
Al Madenah Commercial Centre	7	5.3	5.8
Municipality Head Office	5	3.8	4.1
Immigration Office	5	3.8	4.1
Al Rajhe Apartment Building	4	3.0	3.3
King Abdulaziz International Airport (see Appendix C figure C.11)	4	3.0	3.3
The High Court	4	3.0	3.3
Al Jamjoom Centre	4	3.0	3.3
Marriott Hotel	4	3.0	3.3
Queen Building (see Appendix C figure C.9)	3	2.3	2.5
Al Showaalah Commercial Centre	3	2.3	2.5
Al Mesaadyah Shopping Centre	3	2.3	2.5
Hyatt Regency Hotel	3	2.3	2.5
Khozam Water Tower (see Appendix C figure C.12)	3	2.3	2.5
Apartment Building	2	1.5	1.7
Ramada Hotel	2	1.5	1.7
Lexus Showroom	2	1.5	1.7
Al Hammrah Shopping Centre	2	1.5	1.7
Jeddah Dome	2	1.5	1.7
Bugshan Building	2	1.5	1.7
King Fahd Hospital	2	1.5	1.7
Ali Redah Building	2	1.5	1.7
Dallah Tower	1	.8	.8
Al Faysaleyyah Centre	1	.8	.8
Makkah Al-Mukarramah Emirate building	1	.8	.8
Information Centre	1	.8	.8
Al Kaki Hotel	1	.8	.8
Education Department Building	1	.8	.8
Red Sea Hotel	1	.8	.8
Al Bawadi Market	1	.8	.8
Erfan Hospital	1	.8	.8
Education College	1	.8	.8
Jeddah National Hospital	1	.8	.8
Ministry of P.T.P Building	1	.8	.8
Zanal Building	1	.8	.8
Abd Alraawf Kalel Museum	1	.8	.8
Al Basha Endowment Building	1	.8	.8
Total	121	91.7	100.0
Missing	11	8.3	
Total	132	100.0	

Table 8.47: Most disliked buildings in the city of Jeddah.

The most dominant of these disliked buildings were: squatter houses in general (see figure 7.51); La Elah Ela Allah building, which is an apartment building; Juffali building, which is a modern glass office building; general housing, which covers a number of apartment building built according to a block-of flats prototype by the government; and Al-Madenah commercial centre which is a modern shopping and office centre (see figure 7.64).

Piling results of the responses shows that reasons for building being disliked are varied. The most important of them are: bad design, ugly elevations, poor adaptation to the environment and climate, lack of architectural identity and poor condition. Reasons like lack of safety in the building, bad location, excessive use of glass, inconvenience to modern way of life and discordant overall appearance were also mentioned. Other reasons were mentioned only a few times such as design inconvenience to a Saudi family, bad transformation of traditional architectural elements, lack of consideration of exterior spaces, lack of consideration of human scale and a need for frequent maintenance (see table 8.48).

(Negative) Reasons	Frequency	Percent	Valid Percent
Design	46	17.4	19.2
Elevation aesthetic	36	13.6	15.1
Adaptation to environment and climate	18	6.8	7.5
Architectural identity	16	6.1	6.7
Aesthetic values	16	6.1	6.7
Building condition	16	6.1	6.7
Safety	12	4.5	5.0
Location	12	4.5	5.0
Excessive use of glass	9	3.4	3.8
Convenience to a modern way of life	8	3.0	3.3
Discordant of overall appearance	8	3.0	3.3
Convenient for a Saudi family	7	2.7	2.9
Transformation of traditional architectural elements	7	2.7	2.9
Exterior spaces consideration	6	2.3	2.5
Consideration of human scale	4	1.5	1.7
Maintenance	4	1.5	1.7
Excessive use of wood	3	1.1	1.3
Colours	3	1.1	1.3
Building mass and ratio	3	1.1	1.3
Privacy	2	.8	.8
Harmony	2	.8	.8
Tranquillity	1	.4	.4
Total	239	90.5	100.0
Missing	25	9.5	
Total	264	100.0	

Table 8.48: Reasons for most dislike buildings in the city of Jeddah.

Table (8.49) shows reasons for the five most disliked buildings in the city of Jeddah. People disliked slum buildings in the city because of their incoherent overall appearance and inconvenience to modern way of life, while La Elah Ela Allah building is disliked because of its bad condition and its ugliness. Juffali building is disliked because it is not adapted to the environment and climate, its excessive use of glass, its international architectural identity and its needs for frequent maintenance. The general housing buildings are disliked because their design inconvenience to Saudi family and their ugliness in the judgement of the respondents. People mentioned Al-Madenah Commercial Centre as a disliked building because it is not adapted to the environment and climate and its ugly elevations (see figure 7.46).

(Negative) Reason		Slum Buildings	La Elah Ela Allah Building	Juffali Building	The General Housing	Al Madenah Commercial Center
Architectural identity	Count			3		2
	%			16.7%		14.3%
Exterior spaces consideration	Count		1			
	%		5.0%			
Adaptation to environment and climate	Count			6		7
	%			33.3%		50.0%
Privacy	Count				1	
	%				6.3%	
Convenience for a Saudi family	Count				5	
	%				31.3%	
Consideration of human scale	Count		1		1	
	%		5.0%		6.3%	
Safety	Count	3	1			
	%	13.6%	5.0%			
Design	Count	3	2		3	
	%	13.6%	10.0%		18.8%	
Elevation aesthetic	Count	1	4		4	4
	%	4.5%	20.0%		25.0%	28.6%
Convenience to a modern way of life	Count	6	2			
	%	27.3%	10.0%			
Aesthetic values	Count		2	2	2	
	%		10.0%	11.1%	12.5%	
Excessive use of glass	Count			4		
	%			22.2%		
Maintenance	Count			3		
	%			16.7%		
Building condition	Count	2	5			
	%	9.1%	25.0%			
Building mass and ratio	Count					1
	%					7.1%
Location	Count		2			
	%		10.0%			
Overall appearance	Count	7				
	%	31.8%				
Total	Count	22	20	18	16	14
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.49: Cross reference of reasons and the five most disliked buildings in the city of Jeddah.

Question (17): Mention two places you like to go to for recreation. For each please give two reasons.

The piling of results of responses to question seventeen shows that places which are evaluated positively by people as being places for recreation are mainly Al-Cornish (see figure7.49), the Obhur cabins and various recreation and relaxation parks. Other places are, for example, the Obhur Cornish, the fish restaurants of Al-Madenah Al-Munawarah road, shopping centres, Dorat Al-Aroos (see Appendix C figure C.8), fun parks (see figure 7.50) and the City Centre (see table 8.50).

Place	Frequency	Percent	Valid Percent
Al Cornish	34	38.6	38.6
Obhur cabins	18	20.5	20.5
Recreation and relaxation Parks	12	13.6	13.6
Obhur Cornish	5	5.7	5.7
The fish restaurants of Al-Madenah Al-Munawarah road	4	4.5	4.5
Shopping centres	4	4.5	4.5
Al Anaam Al Jamelah Zoo	2	2.3	2.3
Dorat Al Aroos	2	2.3	2.3
Fun parks	2	2.3	2.3
City Centre	2	2.3	2.3
Abrug Al Ragamah Park	1	1.1	1.1
South Cornish	1	1.1	1.1
Kilais	1	1.1	1.1
Total	88	100.0	100.0

Table 8.50: Places people like to go to for recreation in the city of Jeddah.

The reasons given included the availability of recreational services such as a place's relationship with the sea, its low noise level and suitability for all family members. Other reasons were given, such as a place's beauty, opportunity to practise sports, to breathe clean air away from the city, tranquillity, secure environment for children to play and the quality of recreational services (see table 8.51).

Availability of pedestrian area was one of the reasons for places people like to go for recreation in the city of Jeddah, this is because they need to interact with one another and satisfy social needs. People in general prefer to walk down a busy, full place than an

empty one. In other words, an attractive and interesting place is more likely to be chosen as a walking place than an uninteresting one.

Reason	Frequency	Percent	Valid Percent
Availability of recreation services	46	26.1	26.3
Correlation with the sea	30	17.0	17.1
Noise level	19	10.8	10.9
Recreation and entertainment for all family members	19	10.8	10.9
Place beauty	13	7.4	7.4
Sports practice	11	6.3	6.3
Open air	7	4.0	4.0
Tranquillity	5	2.8	2.9
Secure environment for children to play	5	2.8	2.9
Quality of recreation services	5	2.8	2.9
Education and experience	3	1.7	1.7
Pedestrian area	3	1.7	1.7
Privacy	3	1.7	1.7
Diet of fish	2	1.1	1.1
Availability of open spaces	2	1.1	1.1
Society interaction	1	.6	.6
Proximity to house	1	.6	.6
Total	175	99.4	100.0
Missing	1	.6	
Total	176	100.0	

Table 8.51: Reasons for places people like to go to for recreation in the city of Jeddah.

Table (8.52) shows that people like to go to Al-Cornish area because it provides all recreational services in addition to its relation with the sea. The beauty of the location, suitability for all family members, and clean sea air are also important reasons which make this area active and lively all day and at night. People like to go for recreation purposes to Obhur cabins because these offer very quiet places near the sea and the possibility of practising sports, especially watersports.

Finally people like to go to the fish restaurants along Al-Madenah Al-Munawarah road for the seafood, quiet nature and because they provide good recreational services (see figure 8.5).

Reasons		Al-Cornish	Obhur cabins	Recreation and restaurant parks	Obhur Cornish	Al-Madenah Al-Munawarah Road fish restaurants
Sports practice	Count	1	7		2	
	%	1.5%	19.4%		20.0%	
Diet of fish	Count					2
	%					25.0%
Availability of open spaces	Count	1				
	%	1.5%				
Pedestrian area	Count				1	
	%				10.0%	
Privacy	Count	1			1	1
	%	1.5%			10.0%	12.5%
Society interaction	Count			1		
	%			4.3%		
Noise level	Count	2	8		4	2
	%	2.9%	22.2%		40.0%	25.0%
Recreation for all family members	Count	4	4	6		1
	%	5.9%	11.1%	26.1%		12.5%
Correlation with the sea	Count	20	8		2	
	%	29.4%	22.2%		20.0%	
Tranquillity	Count	1	2			
	%	1.5%	5.6%			
Secure environment for children to play	Count			2		
	%			8.7%		
Place beauty	Count	9	2	1		
	%	13.2%	5.6%	4.3%		
Open air	Count	4	1	1		
	%	5.9%	2.8%	4.3%		
Availability of recreation services	Count	25	4	7		2
	%	36.8%	11.1%	30.4%		25.0%
Quality of recreation services	Count			5		
	%			21.7%		
Total	Count	68	36	23	10	8
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.52: Cross reference of reasons and the most like recreational places in the city of Jeddah.

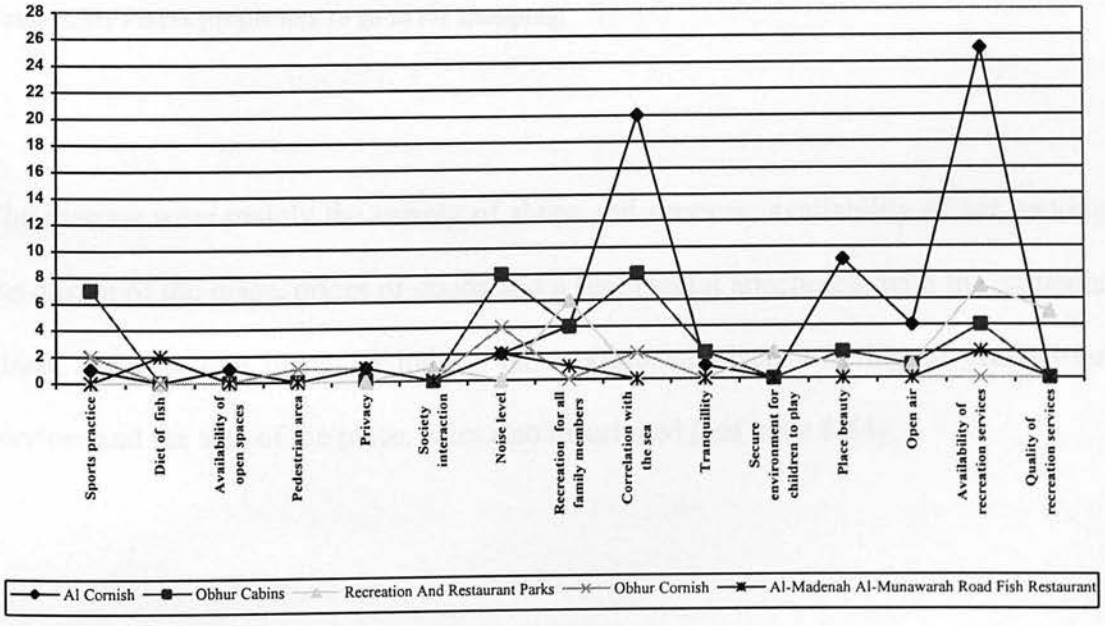

Figure 8.5: The five most like recreational places in the city of Jeddah.

Question (18): Mention two places you like to go to for shopping. For each please give two reasons.

Question eighteen shows that people like to shop in enclosed, air conditioned shopping centres, as many of these, such as Heraa International Market, Jeddah International Market and Al-Mahmal Shopping Centre (see figure 7.47) were mentioned. Other types of preferred shopping places are popular markets such as Al-Bawadi market and Al-Minaa market thought these are not preferred by all (see table 8.53). Traditional markets were very attractive to people who mentioned them several times in their responses (see Chapter Seven section 7.4.2.4).

Place	Frequency	Percent	Valid Percent
City centre shopping area (traditional markets)	21	23.9	23.9
Heraa International Market	17	19.3	19.3
Jeddah International Market	17	19.3	19.3
Al-Mahmal Shopping Centre	14	15.9	15.9
Al-Hejaz Shopping Centre	4	4.5	4.5
Al-Jamjoom Centre	4	4.5	4.5
Al-Mesaadyah Market	2	2.3	2.3
Al-Bawadi Market	2	2.3	2.3
Albasateen Shopping Centre	2	2.3	2.3
Al-Cornish Shopping Centre	1	1.1	1.1
Al Minaa Market	1	1.1	1.1
Al-Showaalah Shopping Centre	1	1.1	1.1
Al-Hammrah Shopping Centre	1	1.1	1.1
Al-Najaar International Market	1	1.1	1.1
Total	88	100.0	100.0

Table 8.53: Places people like to go to for shopping.

The reasons were mainly the variety of shops and services, availability of car parking, the design of the place, prices of goods and a sentimental attachment with the particular place. Reasons like being an indoor, air-conditioned place, offering of recreational services and the size of the place, were also mentioned (see table 8.54).

Reason	Frequency	Percent	Valid Percent
Variety of shops and services	54	30.7	30.9
Car parking	23	13.1	13.1
Design	21	11.9	12.0
Prices of goods	14	8.0	8.0
Sentimental feeling	14	8.0	8.0
Indoor air-conditioned places	11	6.3	6.3
Recreation services availability	11	6.3	6.3
Building size	10	5.7	5.7
Proximity to house	6	3.4	3.4
Markets and commercial activities	4	2.3	2.3
Horizontal relation between spaces	3	1.7	1.7
Elevation aesthetics	2	1.1	1.1
Proximity to city centre	2	1.1	1.1
Total	175	99.4	100.0
Missing	1	.6	
Total	176	100.0	

Table 8.54: Reasons for places people like to go to for shopping.

Table (8.55) shows that the city centre shopping area (traditional market) was considered the most liked place to shop in for most of respondents mainly because of the sentimental attachments to the traditional atmosphere, variety of shops and services and reasonably priced goods.

Heraa International Market was also frequently mentioned by people as a liked place for shopping because of the variety of shops and services, availability of recreational services, being an indoor air-conditioned place, the size of the place and availability of car parking. Jeddah International Market was liked due to the availability of car parking, variety of shops and services and the design of the place was also appreciated. Al-Mahmal Shopping Centre was mentioned mainly because of the variety of shops and services and the design of the place. Al-Hijaz Shopping Centre was appreciated for its variety of shops and services, design and the availability of car parking.

It can be said that the shopping places offer a series of activities, relations and communications. Buying and selling are activities following customs between the buyer and the seller recognised, a need or necessity since money was invented. In the traditional market it goes beyond that. There is an intimacy, sentimental attachment and

social activity. When someone attends to visit the traditional market, for him it is an interesting journey, because while he is doing his shopping he always expecting to see something new and the journey could take hours (author's own experience).

		City centre Shopping Area	Heraa International Market	Jeddah International Market	Al Mahmal Shopping Centre	Al Hejaz Shopping Centre
Prices of goods	Count	11				
	%	26.2%				
Indoor air-conditioned places	Count		5	1	2	
	%		14.7%	2.9%	7.1%	
Sentimental feeling	Count	14				
	%	33.3%				
Design	Count		3	6	8	2
	%		8.8%	17.6%	28.6%	25.0%
Elevation aesthetics	Count				1	
	%				3.6%	
Proximity to house	Count		3	2		
	%		8.8%	5.9%		
Building size	Count		4	1	1	1
	%		11.8%	2.9%	3.6%	12.5%
Horizontal relation between spaces	Count		1	2		
	%		2.9%	5.9%		
Proximity to city centre	Count				2	
	%				7.1%	
Car parking	Count		4	12	1	2
	%		11.8%	35.3%	3.6%	25.0%
Variety of shops and services	Count	14	8	9	10	3
	%	33.3%	23.5%	26.5%	35.7%	37.5%
Markets and commercial activities	Count	3			1	
	%	7.1%			3.6%	
Availability of recreation Services	Count		6	1	2	
	%		17.6%	2.9%	7.1%	
Total	Count	42	34	34	28	8
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.55: Cross reference the five most liked places for shopping in the city of Jeddah and reasons given.

Question (19): Mention two building materials you like most to see in buildings of the city of Jeddah. For each please give two reasons.

Piling results of respondents' responses for question nineteen elicited the observations that people preferred materials that were locally known to them. Wood was the most preferred building material, followed by marble (for the façades), mostly imported from Italy and Greece and representing power and wealth, coral limestone, as the symbol of nature, stone, and finally lightly coloured paints (see table 8.56).

Material	Frequency	Percent	Valid Percent
Wood	22	25.0	25.3
Marble (façades)	14	15.9	16.1
Coral limestone	13	14.8	14.9
Stone	12	13.6	13.8
Light coloured paints	10	11.4	11.5
Concrete	5	5.7	5.7
Glass	3	3.4	3.4
Marble (floors)	3	3.4	3.4
Glass fibre reinforced concrete	2	2.3	2.3
Strong coloured paints	1	1.1	1.1
Moisture and heat resistant paints	1	1.1	1.1
Aluminium	1	1.1	1.1
Total	87	98.9	100.0
Missing	1	1.1	
Total	88	100.0	

Table 8.56: Most liked building materials.

There were many reasons for each building material being preferred by people. Respondents mostly preferred a certain material because it is well-suited to the environment and climate, it is beautiful, easy to maintain or reflects the local architectural identity (see table 8.57).

Reason	Frequency	Percent	Valid Percent
Suited to environment and climate	34	19.3	19.7
Aesthetic values	33	18.8	19.1
Maintenance	22	12.5	12.7
Architectural identity	19	10.8	11.0
Luxury	13	7.4	7.5
Materials performance	12	6.8	6.9
Simplicity	8	4.5	4.6
Building and maintenance cost	6	3.4	3.5
Original heritage	5	2.8	2.9
Convenience to a modern way of life	5	2.8	2.9
Construction speed	5	2.8	2.9
Visual comfort	4	2.3	2.3
Privacy	3	1.7	1.7
Local building materials	3	1.7	1.7
Harmony	1	.6	.6
Total	173	98.3	100.0
Missing	3	1.7	
Total	176	100.0	

Table 8.57: Reasons for a material to be liked.

Table (8.58) shows piling results for respondents' responses giving reasons for the five most preferred materials. Wood is very preferable as a natural material. It was chosen as

the most preferred building material because it is beautiful, well-suited to the environment and climate and reflects local architectural identity.

People also preferred façade marble because it is easy to maintain and connotes luxury and they mentioned coral limestone as it reflects the local architectural identity. The use of the local materials is not only related to the locality of the place, it is physically convenient. Stone was also mentioned for reflecting the local identity, being suitable to the environment and climate and it has good performance. Finally, people preferred light-coloured paint because it is adapted to the environment and climate, is used beautifully and suggests simplicity.

Reasons		Wood	Marble Façades	Coral limestone	Stone	Light coloured paints
Building and maintenance cost	Count	2	1	1		
	%	4.7%	3.6%	3.8%		
Original heritage	Count	4		1		
	%	9.3%		3.8%		
Architectural identity	Count	6		3	8	1
	%	14.0%		11.5%	33.3%	5.0%
Adaptation to environment and climate	Count	10		12	6	5
	%	23.3%		46.2%	25.0%	25.0%
Privacy	Count	3				
	%	7.0%				
Visual comfort	Count			1	1	1
	%			3.8%	4.2%	5.0%
Simplicity	Count	3		1		4
	%	7.0%		3.8%		20.0%
Luxury	Count		8		1	
	%		28.6%		4.2%	
Convenience to modern way of life	Count		2			
	%		7.1%			
Local building materials	Count			2	1	
	%			7.7%	4.2%	
Aesthetic values	Count	14	5	3	2	5
	%	32.6%	17.9%	11.5%	8.3%	25.0%
Maintenance	Count	1	11	1	1	3
	%	2.3%	39.3%	3.8%	4.2%	15.0%
Harmony	Count					1
	%					5.0%
Material performance	Count		1	1	4	
	%		3.6%	3.8%	16.7%	
Total	Count	43	28	26	24	20
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.58: Cross reference of reasons and the five most liked materials.

Question (20): Mention two building materials you do not like to see in the buildings of the city of Jeddah. For each please give two reasons.

While the author was asking people about disliked building materials, he observed that people disliked modern building materials such as glass, steel, aluminium, roof tiles, exposed concrete, red brick and strong coloured paints as well as façade marble and Al-Riyadh stone (see table 8.59).

Material	Frequency	Percent	Valid Percent
Glass	19	21.6	22.9
Steel	13	14.8	15.7
Red brick	13	14.8	15.7
Strong colour paints	9	10.2	10.8
Aluminium	6	6.8	7.2
Marble (for façade)	5	5.7	6.0
Roof tiles	3	3.4	3.6
Gypsum	3	3.4	3.6
Al-Riyadh stone	3	3.4	3.6
Exposed concrete	3	3.4	3.6
Mosaic	2	2.3	2.4
Metal barrier on fences	2	2.3	2.4
Kinds of marble	1	1.1	1.2
Wooden window frames	1	1.1	1.2
Total	83	94.3	100.0
Missing	5	5.7	
Total	88	100.0	

Table 8.59: Most dislike building materials.

Reasons for disliked building materials are that they have not been adapted to the environment and climate, are considered ugly, need frequent maintenance and do not reflect the local architectural identity. Other reasons included disharmony of the overall appearance, being visually uncomfortable, having a high maintenance cost, association with bad performance, being unhealthy and leading to increased electricity consumption (see table 8.60).

(Negative) Reason	Frequency	Percent	Valid Percent
Adaptation to environment and climate	42	23.9	26.6
Aesthetic values	31	17.6	19.6
Maintenance	18	10.2	11.4
Architectural identity	17	9.7	10.8
Disharmony of the overall appearance	10	5.7	6.3
Visual comfort	8	4.5	5.1
Building and maintenance cost	7	4.0	4.4
Materials performance	7	4.0	4.4
House Health level	6	3.4	3.8
Electricity dependency	6	3.4	3.8
Colours	2	1.1	1.3
Ventilation	1	.6	.6
Privacy	1	.6	.6
Luxury	1	.6	.6
Safety	1	.6	.6
Total	158	89.8	100.0
Missing	18	10.2	
Total	176	100.0	

Table 8.60: Reasons for disliked building materials.

Table (8.61) shows piling results for respondents' responses giving reasons for the five most disliked building materials. Glass was the most disliked building material for being poorly adapted to the environment and climate, needing frequent maintenance and cleaning, not reflecting local architectural identity and leading to excessive electricity consumption. Steel was disliked because it is poorly adapted to the environment and climate and is thought to be ugly. People found red brick to be ugly and unhealthy. Strong coloured paints were not seen to be adapted to the environment and climate and led to clashes in the overall appearance. Aluminium was said to be ugly and not adapted to the environment and climate.

(Negative) Reasons		Glass	Steel	Red brick	Strong coloured paints	Aluminium
Architectural identity	Count	6	1	1	1	1
	%	15.8%	4.0%	4.5%	5.6%	9.1%
House health level	Count			6		
	%			27.3%		
Adaptation to environment and climate	Count	16	12		4	4
	%	42.1%	48.0%		22.2%	36.4%
Electricity dependency	Count	6				
	%	15.8%				
Privacy	Count	1				
	%	2.6%				
Visual comfort	Count		1	2	3	
	%		4.0%	9.1%	16.7%	
Aesthetic values	Count		8	10	3	6
	%		32.0%	45.5%	16.7%	54.5%
Maintenance	Count	8	2		2	
	%	21.1%	8.0%		11.1%	
Materials Performance	Count	1		1	1	
	%	2.6%		4.5%	5.6%	
Harmony of the overall appearance	Count		1	2	4	
	%		4.0%	9.1%	22.2%	
Total	Count	38	25	22	18	11
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.61: Cross reference of most disliked building materials and reasons given.

Question (21): Mention two changes in the city you wish had not happened. For each please give two reasons.

Piling results of responses to question twenty-one shows that most of the people wished that many changes had not happened in the city of Jeddah. These changes were mainly related to the city planning and building regulations. People were not satisfied with zoning, the imposition of building regulations and land use issues. Other regretted changes included the uncontrolled expansion of the city, the increased number of shopping centres, the private plots along the Cornish, the demolition of traditional buildings, the mixing of building types and heights and the mixing of activities.

About 12.3% of the sample were satisfied with the city and considered that there was nothing in the city that they wished had not happened (see table 8.62).

Change	Frequency	Percent	Valid Percent
City expansion	13	14.8	16.0
Increasing the number of shopping centres	8	9.1	9.9
Private plots along the Cornish	7	8.0	8.6
Demolition of traditional buildings	5	5.7	6.2
Imported design ideas	5	5.7	6.2
Transformation of old airport land to residential areas	4	4.5	4.9
Mixing of building types and heights	4	4.5	4.9
Use of unsuitable colours	4	4.5	4.9
Mixing of activities	3	3.4	3.7
Lack of consideration to north Jeddah districts	3	3.4	3.7
Building new buildings in between traditional buildings	2	2.3	2.5
Increasing the number of buildings for purpose of investment	2	2.3	2.5
Traffic jams	2	2.3	2.5
Transformation of open spaces lands to residential plots	2	2.3	2.5
Demolition of Jeddah palace hotel	1	1.1	1.2
Rain channel	1	1.1	1.2
Construction of concrete boxes	1	1.1	1.2
Spread of slum areas	1	1.1	1.2
Digging the sea	1	1.1	1.2
Moving the airport outside the city	1	1.1	1.2
Renting traditional buildings to foreigner labours	1	1.1	1.2
Satisfied	10	11.4	12.3
Total	81	92.0	100.0
Missing	7	8.0	
Total	88	100.0	

Table 8.62: Changes in the city that people wished had not happened to the city.

Table (8.63) shows reasons why people regretted many changes in the city. The most important reasons concerned the city's overall appearance, its lack of facilities and general economic reasons. After these come the city's need for new investment projects, its loss of adaptation and connection to the environment and climate, the large number of empty plots inside the built areas, decreased accessibility to the sea front, that the city is a part of our original heritage and that it now lacks open spaces. People also mentioned reasons like diminishing/confused city identity, visual chaos, deterioration of traditional buildings, lack of privacy, non-conformity to building convention and the loss of local architectural identity. Many other reasons were mentioned only once, twice or three times.

Reasons	Frequency	Percent	Valid Percent
City's overall appearance	16	9.1	10.1
Availability of facilities	13	7.4	8.2
Economic reasons	10	5.7	6.3
City need for new investment projects	8	4.5	5.1
Adaptation to environment and climate	7	4.0	4.4
Empty plots	7	4.0	4.4
Accessibility to sea front	7	4.0	4.4
Original heritage	6	3.4	3.8
Availability of open spaces	6	3.4	3.8
City identity	5	2.8	3.2
Visual comfort	5	2.8	3.2
Traditional building restoration	4	2.3	2.5
Privacy	4	2.3	2.5
Conformity to building conventions	4	2.3	2.5
Architectural identity	3	1.7	1.9
Traffic flow	3	1.7	1.9
Population density	3	1.7	1.9
Enhance urban and architecture environment	3	1.7	1.9
People's awareness of traditional architecture	2	1.1	1.3
Environment health	2	1.1	1.3
Noise level	2	1.1	1.3
Recreation and entertainment	2	1.1	1.3
Safety	2	1.1	1.3
Elevation aesthetic	2	1.1	1.3
Design convenience to people needs	2	1.1	1.3
Standards conformity	2	1.1	1.3
Neighbour interaction and coherence	1	.6	.6
Customs and traditions	1	.6	.6
Landmark	1	.6	.6
Feeling of kinship	1	.6	.6
Proximity to city centre	1	.6	.6
Aesthetic values	1	.6	.6
Building condition	1	.6	.6
Mixing of activities	1	.6	.6
No reason	20	11.4	12.7
Total	158	89.8	100.0
Missing	18	10.2	
Total	176	100.0	

Table 8.63: Reasons for changes people wished had not happened to the city.

Reasons for the five most mentioned changes in the city that people wished had not happened were varied. The city expansion, for example, has made it difficult to provide facilities everywhere, has left many empty plots inside the built-up areas and the city is left without any continuity in its identity. People also wished that the number of shopping centre had not increased because of the city need for different investment projects. Finally, people wished that the demolition of number of a large traditional buildings had not taken place because this has destroyed a major part of original heritage; they would rather resources were diverted to restoring such traditional buildings (see table 8.64).

Reason		City Expansion	Increasing The Number Of Shopping Centres	Private Plots Along The Cornish	Demolition Of Traditional Buildings
City need for new investment projects	Count		8		
	%		50.0%		
Economic reasons	Count		8	2	
	%		50.0%	14.3%	
Traditional building restoration	Count				4
	%				40.0%
Original heritage	Count				5
	%				50.0%
Architectural identity	Count				1
	%				10.0%
City identity	Count	3			
	%	11.5%			
Availability of open spaces	Count			1	
	%			7.1%	
Visual comfort	Count			3	
	%			21.4%	
Traffic flow	Count	1			
	%	3.8%			
Empty plots	Count	6			
	%	23.1%			
Availability of facilities	Count	13			
	%	50.0%			
Conformity to building convention	Count	2			
	%	7.7%			
City's overall appearance	Count	1		1	
	%	3.8%		7.1%	
Accessibility to sea front	Count			7	
	%			50.0%	
No reason	Count				
	%				
Total	Count	26	16	14	10
	%	100.0%	100.0%	100.0%	100.0%

Table 8.64: Cross reference of reasons and the most important changes people wished had not happened in the city.

Question (22): Mention two changes you would like to see in the city in the future. For each please give two reasons.

Piling results of question twenty-two shows that all changes that people would like to see in the city in the future cover objective programmes such as street paving, more consideration to open spaces and landscape, building a rain drainage network and decreasing the number of traffic lights. On the surface, people are not aware of the importance of the subjective dimensions such as spiritual and symbolic meanings in the built environment. About 3.4% of the respondents mentioned that they would like to see a reassessment of building design to suit the Saudi family and one person realised the importance of considering the social aspect in city planning in the future (see table 8.65).

Reason	Frequency	Percent	Valid Percent
Quality of street paving	10	11.4	11.5
Consideration of open spaces and landscaping	8	9.1	9.2
Rain drainage network	8	9.1	9.2
Decreasing numbers of traffic lights	7	8.0	8.0
Complete drainage system network	5	5.7	5.7
Redevelopment of slum areas	5	5.7	5.7
New roads and bridges	5	5.7	5.7
Study of district planning system	4	4.5	4.6
Unification of building colour	3	3.4	3.4
Development of al-Arbaeen lagoon	3	3.4	3.4
Study of buildings design to suit Saudi family	3	3.4	3.4
Development of infrastructure	3	3.4	3.4
New road tunnels	3	3.4	3.4
Conformity to building convention	2	2.3	2.3
Widening of some streets	2	2.3	2.3
Re-planning of South Jeddah districts	2	2.3	2.3
Development of South Cornish	2	2.3	2.3
Cancelling unnecessary crossroads	2	2.3	2.3
Unification of building overall appearance	2	2.3	2.3
Study of building regulations	2	2.3	2.3
Large fun park	1	1.1	1.1
Public transportation (trains)	1	1.1	1.1
New recreation areas rather than the sea	1	1.1	1.1
Consideration of social aspects in planning	1	1.1	1.1
New airport	1	1.1	1.1
Continuity of drinking water flow	1	1.1	1.1
Total	87	98.9	100.0
Missing	1	1.1	
Total	88	100.0	

Table 8.65: Changes people would like to see in the city in the future.

Most of the reasons for changes people would like to see in the city in the future were to make it easier for traffic to flow, to ensure a greater level of safety and to develop the city's overall appearance. Other important reasons were to improve the health of the environment, to develop the city aesthetics and to develop the city in general. People also mentioned general economic reasons, to make the design convenience to people needs, to improve the paving quality and to maintain the city identity (see table 8.66).

Reason	Frequency	Percent	Valid Percent
Traffic flow	32	18.2	18.5
Safety	18	10.2	10.4
City's overall appearance	17	9.7	9.8
Environment health	10	5.7	5.8
City aesthetic	10	5.7	5.8
City development	10	5.7	5.8
Economic reasons	7	4.0	4.0
Design convenience to people needs	7	4.0	4.0
Quality of street paving	7	4.0	4.0
City identity	6	3.4	3.5
Place beauty	5	2.8	2.9
Enhance urban and architectural environment	5	2.8	2.9
City expansion	4	2.3	2.3
Activate tourism	3	1.7	1.7
Architectural identity	3	1.7	1.7
Adaptation to environment and climate	3	1.7	1.7
Neighbour interaction and coherence	3	1.7	1.7
Design convenient for a Saudi family	3	1.7	1.7
Neighbourhood design	3	1.7	1.7
Availability of sewage system	3	1.7	1.7
Accessibility to all districts	3	1.7	1.7
Pedestrian area	2	1.1	1.2
Water table level	2	1.1	1.2
Privacy	1	.6	.6
Recreation and entertainment	1	.6	.6
Visual comfort	1	.6	.6
Secure environment for children to play	1	.6	.6
Neighbourhood aesthetics	1	.6	.6
Car parking	1	.6	.6
Provide good living environment	1	.6	.6
Total	173	98.3	100.0
Missing	3	1.7	
Total	176	100.0	

Table 8.66: Reasons for changes people would like to see in the city in the future.

Table (8.67) shows that people would like to have new street paving to increase the safety level and to improve traffic flow as well as for its own sake. People would like to see more consideration paid to open spaces and landscape, to develop the city aesthetics and to improve the health of the environment.

Rain drainage network is one of the things people most like to see in the city's future to make it easier for the traffic flow when it rains and for economic reasons. People also mentioned decreasing the number of traffic lights in the streets to ease traffic flow and improve safety. People mentioned that they would like to have the drainage network completed to develop a healthy civic environment and to decrease the water table level.

Reason		Street paving	Consideration of open spaces and landscape	Rain and flood net system	Decreasing numbers of traffic lights	Complete drainage system network
Economic reasons	Count	1		4		1
	%	5.0%		25.0%		10.0%
Environmental health	Count		5	1		2
	%		31.3%	6.3%		20.0%
Pedestrian area	Count		1			
	%		6.3%			
Water table level	Count					2
	%					20.0%
Neighbour interaction and coherence	Count		1			
	%		6.3%			
Recreation and entertainment	Count		1			
	%		6.3%			
Traffic flow	Count	4		6	7	
	%	20.0%		37.5%	53.8%	
Secure environment for children to play	Count		1			
	%		6.3%			
Safety	Count	7			6	
	%	35.0%			46.2%	
Neighbourhood aesthetics	Count		1			
	%		6.3%			
Availability of sewage system	Count					2
	%					20.0%
Quality of street paving	Count	4		3		
	%	20.0%		18.8%		
City's overall appearance	Count	4		1		3
	%	20.0%		6.3%		30.0%
City aesthetic	Count		6	1		
	%		37.5%	6.3%		
Total	Count	20	16	16	13	10
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.67: Cross reference of the five most important changes people would like to see in the city in the future and the reasons given.

Question (23): Mention three important customs or traditions which characterise the city. For each please, give two reasons.

Piling results of responses to question twenty-three shows that the most important customs and traditions which characterise the city are mainly visits between relatives and friends at feasts (*Eids*), family members gathering at the large family house once a week, going out for recreation at weekends and normal visits between relatives and friends. They also included customs such as friends gathering to play cards, family gathering to watch TV, going shopping, family gathering at *Eid Al-Fitr* day (an Islamic feast day) to eat breakfast at the large family house, doing wedding celebrations at private halls and keeping to a diet of fish.

Other activities were mentioned, such as friends gathering at coffee shops, travelling, playing football and following up the sports news together (see table 8.68). The author observes that most of these customs and traditions are mainly related or directed to the family and friends and that there is a noticeable absence of neighbour-related customs and traditions (see Chapter Seven sections 7.4.1 and 7.6.1).

Custom or tradition	Frequency	Percent	Valid Percent
Visits between relatives and friends at (*Eids*)	14	10.6	11.3
Family gathering at the family house once a week	13	9.8	10.5
Going out for recreation at weekends	13	9.8	10.5
Visits between relatives and friends	13	9.8	10.5
Friends gathering to play cards	9	6.8	7.3
Family gathering to watch television	7	5.3	5.6
Shopping	6	4.5	4.8
Family gathering at *Eid al Fitr* day for breakfast	5	3.8	4.0
Marriage at private halls	5	3.8	4.0
Diet of fish	5	3.8	4.0
Friends gathering at coffee shops	3	2.3	2.4
Travelling	3	2.3	2.4
Playing football and following up sports news	3	2.3	2.4
Going to mosques	3	2.3	2.4
Eids celebration	3	2.3	2.4
Staying up until late at sea coast	2	1.5	1.6
Going to Obhur cabins at weekends	2	1.5	1.6
Eating fast food	2	1.5	1.6
Traditional food	2	1.5	1.6
Social participation and invitation acceptance	2	1.5	1.6
Fishing	1	.8	.8
Traditional costume	1	.8	.8
Simplicity of interaction	1	.8	.8
Staying out until late at night	1	.8	.8
Going to traditional town with children at (*Eids*)	1	.8	.8
Nuclear family	1	.8	.8
Family coherence	1	.8	.8
Neighbour interaction and coherence	1	.8	.8
Going out to restaurants	1	.8	.8
Total	124	93.9	100.0
Missing	8	6.1	
Total	132	100.0	

Table 8.68: Customs and traditions, which characterise the city of Jeddah.

When asking people about the importance of these customs and traditions, many reasons were identified such as family coherence, recreation and entertainment, religious duty and variety in the daily routine.

Other important reasons were, for example social interaction, social co-operation and participation, enactment of culture, customs and traditions, social education and experience, and social coherence. Many other reasons were mentioned only a few times

such as comfort for the housewife, feeling of belonging, nostalgia and adaptation with modern way of life (see table 8.69).

Reasons	Frequency	Percent	Valid Percent
Family coherence	36	13.6	14.5
Recreation and entertainment	32	12.1	12.9
Religious duty	30	11.4	12.1
Variety in the daily routine	21	8.0	8.5
Social interaction	18	6.8	7.3
Social co-operation and participation	14	5.3	5.6
Customs and traditions	14	5.3	5.6
Social education and experience	11	4.2	4.4
Social coherence	11	4.2	4.4
Comfort level to housewife	8	3.0	3.2
Feeling of belonging	7	2.7	2.8
Sentimental feeling	7	2.7	2.8
Modern way of life	6	2.3	2.4
Correlation with the sea	5	1.9	2.0
Neighbour interaction and coherence	4	1.5	1.6
Health benefit	3	1.1	1.2
Liveliness	3	1.1	1.2
Adaptation to modern activities	3	1.1	1.2
City aesthetic	3	1.1	1.2
Activate commercial	2	.8	.8
Activate tourism	2	.8	.8
Ensuring the new generation know about their heritage	2	.8	.8
Sports practice	2	.8	.8
Adaptation to environment and climate	2	.8	.8
Noise level	2	.8	.8
Total	248	93.9	100.0
Missing	16	6.1	
Total	264	100.0	

Table 8.69: Reasons for important customs and traditions, which characterise the city of Jeddah.

Table (8.70) shows the reasons for the five most important customs and traditions in the city of Jeddah. People stated that visits between relatives and friends at *Eids* are important because these reflect social interaction and coherence, are a religious duty and are a way of the social co-operation and participation. People thought that family members gathering at the large family house once a week is important because it perpetuates family coherence and it is a religious duty. Going out for recreation at weekends is an important custom because it also offers a way to change the daily routine, whereas visits between relatives and friends also reflect family coherence, are a religious duty and are one means of social co-operation and participation. Lastly, people

considered friends gathering to play cards as an important custom because it provides of recreation and entertainment and it is a good chance for social interaction.

Reasons		Visits between relatives and friends at Eids	Family gathering at the family house once a week	Going out for recreation at weekends	Visits between relatives and friends	Friends gathering to play cards
Social education and experience	Count					2
	%					11.1%
Religious duty	Count	4	10		7	
	%	14.3%	38.5%		26.9%	
Social co-operation and participation	Count	4			4	1
	%	14.3%			15.4%	5.6%
Family coherence	Count	2	12		9	
	%	7.1%	46.2%		34.6%	
Customs and traditions	Count	2	2		1	
	%	7.1%	7.7%		3.8%	
Social interaction	Count	6		1	2	5
	%	21.4%		3.8%	7.7%	27.8%
Social coherence	Count	5			2	2
	%	17.9%			7.7%	11.1%
Modern way of life	Count			1		
	%			3.8%		
Recreation and entertainment	Count			10		7
	%			38.5%		38.9%
Feeling of belonging	Count	1	2		1	1
	%	3.6%	7.7%		3.8%	5.6%
Sentimental feeling	Count	4				
	%	14.3%				
Variety in the daily routine	Count			12		
	%			46.2%		
City aesthetic	Count			2		
	%			7.7%		
Total	Count	28	26	26	26	18
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.70: Cross reference of the five most important customs and traditions, which characterise the city of Jeddah and the reasons given.

Question (24): Mention two events which are important in the city of Jeddah. For each please give two reasons.

Religion is one of the most important underlying factors that determines the identity of people and their built environment (see Chapter Four Section 4.4). As with other Muslim societies, in Jeddah there are several social, traditional and religious events and celebrations. Piling results of respondents' responses to question twenty-four shows that the most important events are mainly religious events. The most important are *Ramadan* the fasting month, *Eid Al-Fitr* which is just after *Ramadan*, *Dhual Hejjah* the month of

pilgrimage and *Eid Al-Adha* which is just after *Arafat Day*. The traditional built environment was built to accommodate all these events and made it easy for the inhabitants to accomplish them with no disturbance to their routine. Other important events are spring holiday, commercial exhibitions, touristic activities at Al-Cornish and Eids activities in the traditional area of Jeddah (see table 8.71).

Event	Frequency	Percent	Valid Percent
Ramadan	38	28.8	29.7
Spring holiday	30	22.7	23.4
Eid al-Fitr	26	19.7	20.3
Dhual Hejjah	13	9.8	10.2
Eids	8	6.1	6.3
Eid Al-Adha	6	4.5	4.7
Commercial exhibitions	4	3.0	3.1
Touristic activities at Al-Cornish	2	1.5	1.6
Eids activities in the traditional area of Jeddah	1	.8	.8
Total	128	97.0	100.0
Missing	4	3.0	
Total	132	100.0	

Table 8.71: Events, which are important in the city.

When asking people about the reasons for the importance of these events, the author identified that they have very positive impact on activating commerce and tourism in the city, in that they encourage people to do more recreation and entertainment activities, they are important religious occasions, create moments of liveliness everywhere in the city and enhance social interaction (see table 8.72).

Reasons	Frequency	Percent	Valid Percent
Activate commerce	57	21.6	22.3
Activate tourism	42	15.9	16.4
Recreation and entertainment	26	9.8	10.2
Important religious occasions	25	9.5	9.8
Liveliness	21	8.0	8.2
Social interaction	20	7.6	7.8
Correlation with mosques	15	5.7	5.9
Religious activities all over the city	13	4.9	5.1
Variety in the daily routine	11	4.2	4.3
Family coherence	8	3.0	3.1
Spiritual	6	2.3	2.3
Social education and experience	4	1.5	1.6
Customs and traditions	3	1.1	1.2
Revenue source for the city	2	.8	.8
Social coherence	2	.8	.8
Ensuring the new generation know about heritage	1	.4	.4
Total	256	97.0	100.0
Missing	8	3.0	
Total	264	100.0	

Table 8.72: Reasons for important events in the city.

Table (8.73) shows the piling results of responses to reasons that make any events important. *Ramadan*, the most mentioned event, is important because it activates commerce, correlation with mosques and religious centres all over the city and it is an important religious occasion. People also mentioned spring holiday as an important event because it activates tourism, commerce and a sense of liveliness all over the city. People also mentioned *Eid Al-Fitr* as an important event because it makes more social interaction and activate tourism, recreation and entertainment. *Dhual Hejjah* is important event because it activates commerce and tourism and it is an important religious occasion. Feasts in general (*Eids*) are also important events because they generate more social interaction, are important religious occasions and are recreation and entertainment.

Reason		*Ramadan*	Spring Holiday	*Eid Al-Fitr*	*Dhual Hejjah*	*Eids*
Revenue source for the city	Count		2			
	%		3.3%			
Activate commerce	Count	24	14	2	10	2
	%	31.6%	23.3%	3.8%	38.5%	12.5%
Activate tourism	Count		23	10	5	1
	%		38.3%	19.2%	19.2%	6.3%
Important religious occasions	Count	10		4	5	3
	%	13.2%		7.7%	19.2%	18.8%
Spiritual	Count	5			1	
	%	6.6%			3.8%	
Religious activities all over the city	Count	11			1	1
	%	14.5%			3.8%	6.3%
Correlation with mosques	Count	15				
	%	19.7%				
Family coherence	Count	2	1	4		
	%	2.6%	1.7%	7.7%		
Customs and traditions	Count			1	2	
	%			1.9%	7.7%	
Social interaction	Count	3	1	11		4
	%	3.9%	1.7%	21.2%		25.0%
Social coherence	Count			1		
	%			1.9%		
Recreation and entertainment	Count		7	9	2	3
	%		11.7%	17.3%	7.7%	18.8%
Liveliness	Count	3	8	7		1
	%	3.9%	13.3%	13.5%		6.3%
Variety in the daily routine	Count	3	4	3		1
	%	3.9%	6.7%	5.8%		6.3%
Total	Count	76	60	52	26	16
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.73: Cross reference of the five most important events in the city of Jeddah and the reasons given.

Question (25): Mention two historical means by which people have contributed to the character of the city.

Piling results of question twenty-five shows that there are many ways in which people have contributed to the character of the city. Social coherence, city size, and people's participation in building their houses dominated the responses.

Other important things from the past which increased people's contribution to the character of the city were the unification of a building system, the use of local building materials, the cultural consideration of religious aspects and the unity of building materials (see table 8.74).

Historical means	Frequency	Percent	Valid Percent
Social coherence	23	26.1	27.4
City size	13	14.8	15.5
People participation in building houses	13	14.8	15.5
Unification of building system	9	10.2	10.7
Local building materials	7	8.0	8.3
Consideration of religious aspects	5	5.7	6.0
Diversity of building materials	5	5.7	6.0
The simple way of life	3	3.4	3.6
Traditional planning methods	2	2.3	2.4
Conformity to building convention	1	1.1	1.2
Feeling of belonging	1	1.1	1.2
Consideration of environment and climatic aspects in design	1	1.1	1.2
Extended family system	1	1.1	1.2
Total	84	95.5	100.0
Missing	4	4.5	
Total	88	100.0	

Table 8.74: Historical means which increased people contribution to the character of the city.

People also mentioned the simple way of life, traditional planning methods, conformity to building convention, a strong feeling of belonging, consideration of environmental and climatic aspects in design and the extended family system (see figure 8.6).

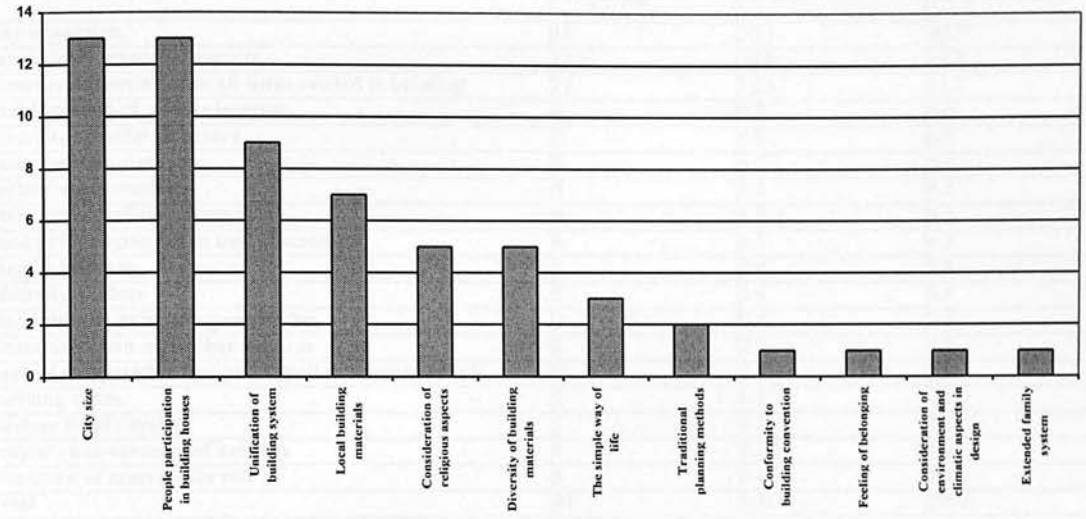

Figure 8.6: Historical means which increased people contribution to the character of the city.

Question (26): Mention two reasons why people can not contribute to the character of the city nowadays.

Piling results show that there are many reasons why people can not contribute to the character of the city. The most important one from the point view of people is the city expansion on a massive scale, which diminishes people's scope in contribution. People also mentioned that they were too busy in different aspects of life and that it was the role of professionals to watch over all aspects of building and design.

Other important reasons were the consideration of private interests, diversity of social structure, the new planning methods, social fragmentation, diversity of building materials and lack of belonging felt in the newer generations (see table 8.75).

Reason	Frequency	Percent	Valid Percent
City expansion	18	20.5	20.5
People busy otherwise aspects	13	14.8	14.8
Presence of specialists in all fields related to building	11	12.5	12.5
Consideration of private interest	7	8.0	8.0
Diversity of social structure	6	6.8	6.8
New planning methods	5	5.7	5.7
Social fragmentation	4	4.5	4.5
Diversity of building materials	4	4.5	4.5
Lack of belonging felt in new generations	4	4.5	4.5
Wealth increase	3	3.4	3.4
Diversity of ideas	3	3.4	3.4
Uncommitted to building regulation	2	2.3	2.3
Communication with other cultures	2	2.3	2.3
Lack of co-operation and participation between people	2	2.3	2.3
Building codes	1	1.1	1.1
Nuclear family system	1	1.1	1.1
People's unawareness of heritage	1	1.1	1.1
Weakness of mass media role	1	1.1	1.1
Total	88	100.0	100.0

Table 8.75: Reasons why people can not contribute to the character of the city nowadays.

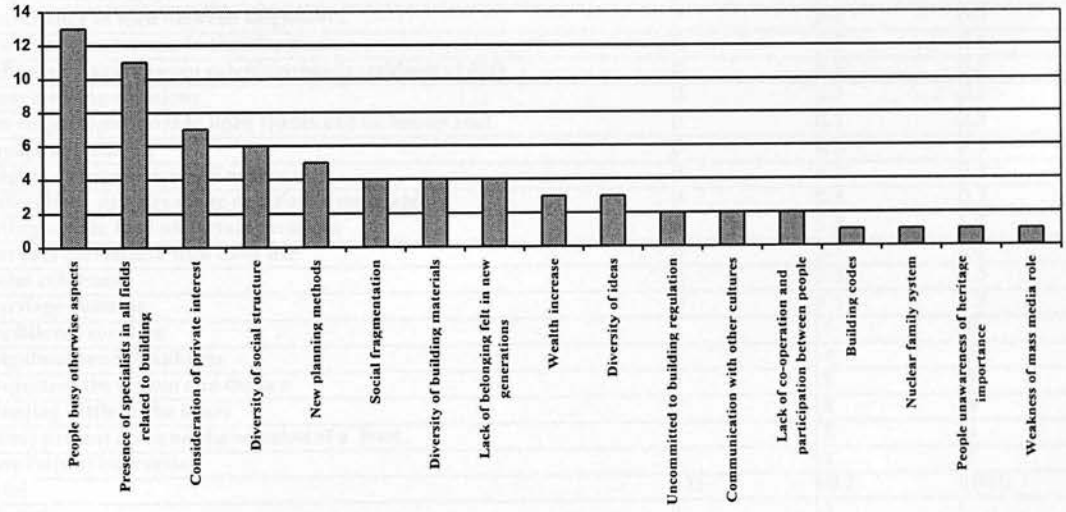

Figure 8.7: Reasons why people can not contribute to the character of the city nowadays

Question (27): Mention three important customs or traditions which characterised the traditional city of Jeddah and you would like to see in the current city. For each please give two reasons.

Piling results of the responses to question twenty-seven shows that the most important customs and traditions which used to characterise Jeddah were mainly *Eids* celebrations and folklore, visits between neighbours, daily gathering of neighbours (see Appendix B figure B.5), social co-operation and participation and children playing in open spaces and alleyways among others (see table 8.76).

It has been observed that most of these customs and traditions do not need specific physical objects. For this, it is the responsibility of the people of society, not the provider of infrastructure to think of ways to regenerate these functions because reviving old customs and activities is likely to enhance the cultural heritage of the people of Jeddah.

Custom and tradition	Frequency	Percent	Valid Percent
Feasts (*Eids*) celebration and folklore	16	12.1	12.2
Visits between neighbours	12	9.1	9.2
Daily gathering of neighbours	11	8.3	8.4
Social co-operation and participation	11	8.3	8.4
Children playing in open spaces and alleyways	10	7.6	7.6
Neighbourliness	8	6.1	6.1
Extended family system	8	6.1	6.1
Neighbourhood mayor	8	6.1	6.1
Interchange of food between neighbours	7	5.3	5.3
Visits between women in the afternoons	6	4.5	4.6
Collective visits between neighbourhoods residents at *Eids*	5	3.8	3.8
Early sleeping occasions	3	2.3	2.3
Marriage celebrations in open spaces and on houses roof	3	2.3	2.3
Voyage and fishing	3	2.3	2.3
Neighbour interaction and coherence	3	2.3	2.3
(*Rifd*) gift or support in the occasion of marriage	3	2.3	2.3
Eating certain food on certain occasions	2	1.5	1.5
Mosques correlation with daily life	2	1.5	1.5
Social coherence	2	1.5	1.5
Marriage customs	2	1.5	1.5
Traditional costume	1	.8	.8
Neighbourhood cleanliness	1	.8	.8
Respecting the system and the law	1	.8	.8
Breeding cattle at the house	1	.8	.8
(*Idiya*) present given on the occasion of a feast	1	.8	.8
Simplicity of interaction	1	.8	.8
Total	131	99.2	100.0
Missing	1	.8	
Total	132	100.0	

Table 8.76: Important customs and traditions which characterised the old town of Jeddah.

Table (8.77) shows the most important reasons behind important customs and traditions. Social co-operation and enhancement of participation, social coherence, neighbour interaction and coherence, recreation and entertainment, and religious duty were the most mentioned reasons.

Other important reasons were, education and experience, liveliness, simplicity and customs and traditions followed by several more like health benefits, family coherence, feeling of belonging and provide good living environment mentioned only a few times.

Reasons	Frequency	Percent	Valid Percent
Society co-operation and enhancement of participation	43	16.3	16.4
Social coherence	41	15.5	15.6
Neighbour interaction and coherence	31	11.7	11.8
Recreation and entertainment	31	11.7	11.8
Religious duty	25	9.5	9.5
Education and experience	16	6.1	6.1
Liveliness	14	5.3	5.3
Simplicity	8	3.0	3.1
Customs and traditions	7	2.7	2.7
Health benefits	6	2.3	2.3
Family coherence	6	2.3	2.3
Feeling of belonging	5	1.9	1.9
Provide good living environment	5	1.9	1.9
Presence of respectable figurehead neighbourhood	4	1.5	1.5
Correlation with the sea	4	1.5	1.5
Security	4	1.5	1.5
Sentimental feeling	4	1.5	1.5
Original heritage	3	1.1	1.1
Urbanisation	2	.8	.8
Economic reasons	1	.4	.4
Responsibility of resident in providing good living environment	1	.4	.4
Enhance urban and architectural environment	1	.4	.4
Total	262	99.2	100.0
Missing	2	.8	
Total	264	100.0	

Table 8.77: Reasons for important customs and traditions, which characterised the old town of Jeddah and people would like to see in the current city.

The reasons behind the *Eids* celebration and folklore, the most mentioned traditions, were recreation, entertainment, giving a sense of liveliness to the city and social coherence. The reasons behind social coherence being given as the second, most important custom or tradition were visits between neighbours, social co-operation and participation, neighbour interaction and coherence and the religious duty. Those behind the third, most important custom or tradition, which is daily gathering of neighbours, were neighbour interaction and coherence, social co-operation, and enhancement of participation, and recreation and entertainment. Social co-operation and participation was the fourth, most important custom and tradition. Reasons behind its importance were the social coherence, social co-operation and enhancement of participation, and its

religious duty. Children playing in open spaces and alleyways was the fifth most important custom and tradition. Reasons behind its importance are education and experience for children, giving a sense of liveliness for city and recreation and entertainment (see table 8.78).

Reasons		Eids celebration and folklore	Visits between neighbours	Social co-operation and participation	Daily gathering of neighbours	Children playing in open spaces and alleyways
Original heritage	Count	2				
	%	6.3%				
Education and experience	Count				2	9
	%				9.1%	45.0%
Religious duty	Count		3	4		
	%		12.5%	18.2%		
Neighbour interaction and coherence	Count	2	9	1	9	
	%	6.3%	37.5%	4.5%	40.9%	
Society co-operation and enhancement of participation	Count	1	6	6	4	2
	%	3.1%	25.0%	27.3%	18.2%	10.0%
Customs and traditions	Count	1				
	%	3.1%				
Resident consideration to provide good social environment	Count				1	
	%				4.5%	
Social coherence	Count	6	2	10	1	
	%	18.8%	8.3%	45.5%	4.5%	
Recreation and entertainment	Count	12	3		4	3
	%	37.5%	12.5%		18.2%	15.0%
Security	Count		1			2
	%		4.2%			10.0%
Simplicity	Count	1				
	%	3.1%				
Liveliness	Count	7			1	4
	%	21.9%			4.5%	20.0%
Provide good living environment	Count			1		
	%			4.5%		
Total	Count	32	24	22	22	20
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.78: Cross reference of the important customs and traditions which were characterised the old town of Jeddah and people like to see in the current city and the reasons given.

Question (28): Mention two important changes you would like to see in the traditional area of Jeddah. For each please give two reasons.

Piling results of responses shows that there are many changes people would like to see in the traditional area of Jeddah. People recognise a great need to improve the existing situation of the old town for example, the restoration and maintenance of old buildings, conversion to pedestrian area, provision of car parking, provide facilities, enabling

emergency vehicle access and development of traditional area. People also want to enjoy some activities in the traditional area such as cultural, recreational and touristic activities. Finally, people indicated a powerful desire to improve the existing administrative system, for example, stopping construction of modern buildings in the traditional area, stopping the use of traditional buildings as storage and stopping the rental of traditional building to labourers from other countries because they do not know the building's values and how to use them which cause a lot of damages to the buildings (see table 8.79).

Type of change	Reason	Frequency	Percent	Valid Percent
Improve the existing situation	Restoration and maintenance	70	39.8	.41.2
Add new activities	Cultural and recreation activities	26	14.8	15.3
	Conversion to pedestrian area	20	11.4	11.8
	Provide car parking	10	5.7	5.9
	Activate tourism	10	5.7	5.9
	Development of traditional area	6	3.4	3.5
	Provide facilities	2	1.1	1.2
	Enable emergency vehicle access	2	1.1	1.2
Improve the administrative condition	Develop buildings to suit modern way of life	6	3.4	3.5
	Stop building modern buildings in the traditional town	6	3.4	3.5
	Stop using traditional buildings as stores	6	3.4	3.5
	Stop renting traditional buildings to foreign labourers	6	3.4	3.5
	Total	170	96.6	100.0
	Missing	6	3.4	
	Total	176	100.0	

Table 8.79: Important changes people would like to see in the old town of Jeddah.

Reasons behind the need for changes in the traditional area of Jeddah were various such as restoration of traditional building, ensuring that new generation's know about their heritage and preservation of the original heritage. Other important reasons were, to activate tourism, aesthetic values, awareness of traditional architecture and benefit from potential of the traditional area. Other reasons were mentioned few times, like design convenience to the user, architectural identity, encouraging pedestrians to walk and making it convenient to modern way of life (see table 8.80).

Reason	Frequency	Percent	Valid Percent
Traditional building restoration	36	20.5	21.7
Ensuring the new generation know about their heritage	27	15.3	16.3
Original heritage	23	13.1	13.9
Activate tourism	16	9.1	9.6
Aesthetic values	16	9.1	9.6
People's awareness of traditional architecture	11	6.3	6.6
Benefit from potential of traditional town	9	5.1	5.4
Design convenience to the use	5	2.8	3.0
Architectural identity	4	2.3	2.4
Pedestrians area	4	2.3	2.4
Convenience to a modern way of life	4	2.3	2.4
Safety	3	1.7	1.8
Building condition	3	1.7	1.8
Revenue source for the city	2	1.1	1.2
Traditional city's overall appearance	2	1.1	1.2
City identity	1	.6	.6
Total	166	94.3	100.0
Missing	10	5.7	
Total	176	100.0	

Table 8.80: Reasons for changes people like to see in the old town of Jeddah.

Reasons for the five most important changes people would like to see in the traditional area of Jeddah were various. The first change people would like to see in the traditional area is restoration and maintenance of old buildings and this is because it is the city's original heritage, to ensure new generation know about their heritage, to restore traditional buildings and to maintain its aesthetic values.

The second change people would like to see in the traditional area of Jeddah would be to add some cultural and recreational activities. This is to benefit from potential of traditional area, to ensure new generation know about their heritage, to increase people's awareness of traditional architecture and to activate tourism to the traditional area.

Converting the traditional area to a pedestrian only area is the third important change people would like to see. This could activate tourism to the traditional area, to make it safe for pedestrians to walk and to rescue traditional buildings from vehicle damage.

Activating tourism to the traditional area of Jeddah is the fourth change people would like to see. This is mainly to benefit from its existing potential. Providing car parking is the fifth important change people like to see in the old town, also to activate tourism (see table 9.81).

Reason		Restoration and maintenance	Cultural and recreation activities	Convert it to pedestrians area	Activate tourism	Provide car parking
Revenue source for the city	Count				1	
	%				10.0%	
Activate tourism	Count		4	6		5
	%		15.4%	30.0%		71.4%
Benefit from potential of traditional town	Count		5		3	
	%		19.2%		30.0%	
Ensuring the new generation know about their heritage	Count	17	5	1	1	1
	%	24.3%	19.2%	5.0%	10.0%	14.3%
Traditional building restoration	Count	16	7	3	3	
	%	22.9%	26.9%	15.0%	30.0%	
Original heritage	Count	19				
	%	27.1%				
Architectural identity	Count	2				
	%	2.9%				
People's awareness of traditional architecture	Count	2	5		1	1
	%	2.9%	19.2%		10.0%	14.3%
City identity	Count	1				
	%	1.4%				
Pedestrian area	Count			4		
	%			20.0%		
Convenience to a modern way of life	Count	1				
	%	1.4%				
Aesthetic values	Count	10		3	1	
	%	14.3%		15.0%	10.0%	
Building condition	Count	1				
	%	1.4%				
Design convenience to the use	Count			3		
	%			15.0%		
Traditional city's overall appearance	Count	1				
	%	1.4%				
Total	Count	70	26	20	10	7
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9.81: Cross reference of the important changes people would like to see in the old town of Jeddah and the reasons given.

Question (29): Mention two activities people do in their everyday life. For each please give two reasons.

Human activities, with their specific demands on the man-made environment, make our cities function and provide enjoyment. As they do so, the city comes to constitute, in itself, a highly valued quality (see Chapter Four section 4.3.2). The questionnaire found

that the important activities people do in their everyday life are shopping at shopping centres and supermarkets, going out for recreation at weekends, watching television as a family, playing football and following up sports news, family members going to work, generally staying up until late at nights and gathering with friends to play cards. It is clear that the social activities are less important than private activities which are dominant in everyday life (see table 8.82).

Things people do in their every day life	Frequency	Percent	Valid Percent
Shopping at shopping centres and supermarkets	21	15.9	16.5
Going for recreation at the weekends	19	14.4	15.0
Watching television as a family	17	12.9	13.4
Playing football and following up sport news	14	10.6	11.0
Family members going to work	13	9.8	10.2
Staying out until late at night	12	9.1	9.4
Friends gathering to play cards	11	8.3	8.7
Visits between relatives and friends	7	5.3	5.5
Going out to Obhur cabins at weekends	4	3.0	3.1
Going out to restaurants	3	2.3	2.4
Family gathering at the family house once a week	2	1.5	1.6
Friends gathering at coffee shops	1	.8	.8
Family gathering to eat meals	1	.8	.8
Sea sports practice	1	.8	.8
Afternoon nap	1	.8	.8
Total	127	96.2	100.0
Missing	5	3.8	
Total	132	100.0	

Table 8.82: Things people do in their everyday life.

Reasons for important things people do in their everyday life were recreation and entertainment, adding variation to the daily routine, social education and experience, enjoying a modern way of life, family coherence and liveliness for the city.

Other reasons like sports practice, adaptation to environment and climate, social interaction and religious duty were also important. Lesser reasons were mentioned only few times, like social coherence, health benefits, tranquillity and city aesthetics (see table 8.83).

Reason	Frequency	Percent	Valid Percent
Recreation and entertainment	56	21.2	22.0
Variety in the daily routine	35	13.3	13.8
Society education and experience	29	11.0	11.4
Modern way of life	25	9.5	9.8
Family coherence	20	7.6	7.9
Liveliness	20	7.6	7.9
Sports practice	15	5.7	5.9
Adaptation to environment and climate	11	4.2	4.3
Social interaction	11	4.2	4.3
Religious duty	8	3.0	3.1
Social coherence	5	1.9	2.0
Health benefit	4	1.5	1.6
Tranquillity	4	1.5	1.6
City aesthetic	4	1.5	1.6
Comfort to housewife	2	.8	.8
Customs and traditions	2	.8	.8
Correlation with the sea	1	.4	.4
Security	1	.4	.4
Feeling of belonging	1	.4	.4
Total	254	96.2	100.0
Missing	10	3.8	
Total	264	100.0	

Table 8.83: Reasons for things people do in their every day life.

Table (8.84) shows reasons for the five most important things people do in their every day life in the city of Jeddah. Shopping at shopping centres and supermarkets was an important activity for recreation and entertainment to cope with the modern way of life and to vary the daily routine (see Chapter Four section 4.3.2.2). Going out for recreation at weekends was also important for people mainly to change the daily routine and for recreation and entertainment. Watching television as a family is seen as a tool to educate and to gain more experience for all family members as well as an opportunity to informally gather family members together. Football playing and following sports news were also mentioned for recreation and entertainment benefits, whereas family members going to work reflects the modern way of life, education and experience and is a religious duty.

Reasons		Watching television as a family	Going for recreation at the weekends	Shopping at shopping centres and supermarket	Playing football and following up sports news	Family going to work
Society education and experience	Count	14		3		8
	%	41.2%		7.1%		30.8%
Religious duty	Count					4
	%					15.4%
Sports practice	Count				12	
	%				42.9%	
Health benefit	Count				3	
	%				10.7%	
Family coherence	Count	12	1			
	%	35.3%	2.6%			
Social interaction	Count		1		1	
	%		2.6%		3.6%	
Modern way of life	Count	1	1	10		10
	%	2.9%	2.6%	23.8%		38.5%
Recreation and entertainment	Count	7	10	15	9	
	%	20.6%	26.3%	35.7%	32.1%	
Tranquillity	Count		1			
	%		2.6%			
Liveliness	Count		5	4	1	3
	%		13.2%	9.5%	3.6%	11.5%
Variety in the daily routine	Count		17	10	2	1
	%		44.7%	23.8%	7.1%	3.8%
City aesthetic	Count		2			
	%		5.3%			
Total	Count	34	38	42	28	26
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 8.84: Cross reference of things people do in their every day life and the reasons given.

Question (30): Please give two advantages of traditional architecture.

According to the responses, the traditional architecture is distinguished by its aesthetic values, adaptation to the environment and climate, consideration of privacy (see Chapter Four section 4.3.1.1), its architectural identity and its simplicity (see table 8.85).

Advantage	Frequency	Percent	Valid Percent
Aesthetic values	21	23.9	23.9
Adaptation to environment and climate	12	13.6	13.6
Privacy	9	10.2	10.2
Architectural identity	6	6.8	6.8
Simplicity	6	6.8	6.8
Local building material	4	4.5	4.5
Building strength	4	4.5	4.5
Neighbour interaction and coherence	3	3.4	3.4
Utilisation of area in design	3	3.4	3.4
Bay windows (*Rawshan*)	3	3.4	3.4
Traditional planning methods	3	3.4	3.4
Ventilation	2	2.3	2.3
Decorative and architectural elements	2	2.3	2.3
Religious aspects in design	1	1.1	1.1
Energy dependency	1	1.1	1.1
Family coherence	1	1.1	1.1
Tranquillity	1	1.1	1.1
Consideration of human scale	1	1.1	1.1
Consideration of human dimension	1	1.1	1.1
Elevation aesthetics	1	1.1	1.1
Correlation between interior and exterior	1	1.1	1.1
Building size	1	1.1	1.1
Proximity of building	1	1.1	1.1
Total	88	100.0	100.0

Table 8.85: Advantages of traditional architecture.

Characteristics like the use of local building materials, building strength, neighbour interaction and coherence, good utilisation of area, the use of bay windows (*Rawshan*) and the traditional planning methods were also mentioned by respondents.

Other characteristics were mentioned a few times like good ventilation, the use of decorative and architectural elements and the adaptation of religious aspects in planning and design.

Question (31): Please give two disadvantages of traditional architecture.

From the answers it can be realised that that most of the mentioned disadvantages of traditional architecture are related to modern issues. It was found that convenience to modern way of life, the high cost of building and maintenance, the small sizes of spaces and the lack of modern equipment were the most frequently mentioned disadvantages of traditional architecture (see table 8.86). Other characteristics were the vertical relation between spaces, it is not suitable for modern activities, narrow streets and proximity of buildings (see figure 8.9).

(Negative) Disadvantages	Frequency	Percent	Valid Percent
Convenience to a modern way of life	25	28.4	30.9
Building and maintenance cost range	14	15.9	17.3
Size of spaces	9	10.2	11.1
Availability of modern equipment	7	8.0	8.6
Adaptation with modern activities	5	5.7	6.2
Vertical relation between spaces	5	5.7	6.2
Width of street	4	4.5	4.9
Proximity of buildings	4	4.5	4.9
Diversity of building material	2	2.3	2.5
Car parking	2	2.3	2.5
New planning methods	2	2.3	2.5
Nothing	2	2.3	2.5
Total	81	92.0	100.0
Missing	7	8.0	
Total	88	100.0	

Table 8.86: Disadvantages of traditional architecture.

Question (32): Please give two advantages of modern architecture.

Again the questionnaire suggests that most advantages of modern architecture are related to issues of modernity (see table 8.87). Other characteristics like the good designs, utilisation of modern technology, the large spaces and adaptation to modern activities are also mentioned. Luxury, aesthetic values, design flexibility and tranquillity were also mentioned but only few times as an advantages of modern architecture (see figure 8.10).

Piling results shows that the most mentioned advantages of the modern architecture were the use of modern equipment, convenience to modern way of life, diversity of design ideas and diversity of building materials (see table 8.87).

Advantages	Frequency	Percent	Valid Percent
Availability of modern equipment	13	14.8	15.1
Convenience to a modern way of life	11	12.5	12.8
Diversity of ideas	9	10.2	10.5
Diversity of building material	8	9.1	9.3
Design	6	6.8	7.0
Utilisation of modern technology	6	6.8	7.0
Size of space	5	5.7	5.8
Adaptation with modern activities	4	4.5	4.7
Luxury	3	3.4	3.5
Aesthetic values	3	3.4	3.5
Design flexibility	3	3.4	3.5
Tranquillity	2	2.3	2.3
Architecture details	2	2.3	2.3
Building strength	2	2.3	2.3
Horizontal relation between spaces	2	2.3	2.3
New planning methods	2	2.3	2.3
Environment health	1	1.1	1.2
Development of traditional architecture	1	1.1	1.2
Elevation aesthetic	1	1.1	1.2
Utilisation of area in design	1	1.1	1.2
Construction speed	1	1.1	1.2
Total	86	97.7	100.0
Missing	2	2.3	
Total	88	100.0	

Table 8.87: Advantages of modern architecture

Question (33): Please give two disadvantages of modern architecture.

It has been found that the most mentioned disadvantages of modern architecture were the high cost of building and maintenance, design repetition, excessive building and the lack of architectural identity (see table 8.88).

(Negative) Disadvantages	Frequency	Percent	Valid Percent
Building and maintenance cost range	19	21.6	22.4
Designs repetition	8	9.1	9.4
Excessive building	8	9.1	9.4
Architectural identity	6	6.8	7.1
Energy dependency	6	6.8	7.1
Adaptation to environment and climate	5	5.7	5.9
Maintenance	4	4.5	4.7
Neighbour interaction and coherence	3	3.4	3.5
Luxury	3	3.4	3.5
Consideration of human scale	3	3.4	3.5
Aesthetic values	3	3.4	3.5
Harmony	3	3.4	3.5
Privacy	2	2.3	2.4
Design convenience for a Saudi family	2	2.3	2.4
Elevation aesthetic	2	2.3	2.4
Transformation of traditional architectural elements	2	2.3	2.4
Colours	2	2.3	2.4
Building codes	2	2.3	2.4
Consideration of orientation	1	1.1	1.2
Diversity of building materials	1	1.1	1.2
Total	85	96.6	100.0
Missing	3	3.4	
Total	88	100.0	

Table 8.88: Disadvantages of modern architecture.

Other important disadvantages of modern architecture mentioned by respondents were energy dependency, being poorly adapted to the environment and climate and requiring a lot of maintenance. Other disadvantages mentioned less frequently were lack of neighbour interaction and coherence, no consideration to human scale or of the need for privacy, inconvenience to the Saudi family and that modern architecture does not consider orientation (see figure 8.11).

8.5 Dimensions

The piling analysis of the responses gives us a view of Jeddah's identity through its built environment and people. But this information does not help us to interpret this identity for the future, owing to the continuous development of that identity. To do this, it is necessary to look at the considerations that have resulted in this built environment and how people interact with it. Some of these considerations may have ceased to be of consequence, whereas many others will continue to play commanding roles.

"Dimensions are motivating influences or forces behind any occurrence in the environment, whether the occurrence is physical or emotional, visible or invisible, permanent or transitory" (Abdalla, 1998). These motives include such issues as the weather or building materials, whereas internal constraints include the inherited traits of living and a need to socialise. Every action, every motion, every building will be a result of a number of these underlying requirements. Altogether, these or forces or dimensions make up what we consider to be the culture of a place and, as such, affect its spatial or architectural properties.

If we consider dimensions to be the motivating forces for any occurrence in the environment, we could argue that these dimensions also affect people's interpretations of the built environment. This part of the research is going to identify the dimensions

used by people to evaluate their built environment, and to try to find out if these dimensions are the same for different people.

There are approximately 5,800 separate responses which provide the information relating to people's interpretations of the city. A classification process was conducted on all reasons that people mentioned to elicit the dimensions. In general, the dimensions could be a subjective or objective interpretations. There were nine dimensions in total, each with many components or aspects. The economic dimension, for example, contains aspects of the city economy such as commerce, touristic activation and aspects of an individual's economy such as the building and maintenance costs. The socio-cultural dimension contains all factors related to social relationships, activities, traditions, norms, knowledge and awareness of tradition and heritage. The religious dimension contains aspects related to the role of religion in forming the built environment and the life of people such as the religious duty of people, the city religious role in serving pilgrims and the important religious occasions that takes place in the city like all other Islamic cities (see Table 8.89).

Dimensions	Freq	Perc		Reasons	Freq	Perc
Economic	369	6.4		City need for new projects	8	.1
				Revenue source for the city	44	.8
				Commerce activation	102	1.8
				Tourism activation	97	1.7
				Building and maintenance cost range	55	.9
				Benefit from potential of the traditional area	9	.2
				Ownership	14	.2
				Reasonable rent	8	.1
				Prices of goods	14	.2
				Other economic reasons	18	.3
			Total		**369**	**6.4**
Socio-cultural	930	16		Neighbour interaction and coherence	109	1.9
				Social co-operation and participation	102	1.8
				Social coherence	79	1.4
				Family coherence	73	1.3
				Social education and experience	70	1.2
				Privacy level	70	1.2
				Social interaction	59	1.0
				Original heritage	51	.9
				Customs and traditions	45	.8
				Traditional buildings restoration	40	.7
				Sport practice	28	.5
				Diet of fish	5	.1
				Resident consideration to provide good living social environment	23	.4
				Presence of respectable neighbourhood figurehead	12	.2
				Design convenient for a Saudi family	15	.3
				Social level of resident	25	.4
				Ensuring the new generation know about their heritage	30	.5
				People's awareness of traditional architecture	13	.2
				Communication with other cultures	10	.2
				City general identity	24	.4
				Modernisation	2	.0
				Modern way of life	31	.5
				Way of life	5	.1
			Total		**930**	**16**
Religious	185	3.2		Consideration of religious aspects in design	9	.2
				Proximity to mosque	10	.2
				City religious role	33	.6
				Important religious occasions	26	.4
				Religious duty	73	1.3
				Spiritual	6	.1
				Religious activities all over the city	13	.2
				Correlation with mosques	15	.3
			Total		**185**	**3.2**
Landscape	134	2.3		Landscape	51	.9
				Availability of open spaces	38	.7
				Pedestrian Area	17	.3
				Pedestrian crossing	10	.2
				Sculptures	4	.1
				Exterior spaces consideration	9	.2
				Integration between buildings and landscape elements	5	.1
			Total		**134**	**2.3**
Environmental	283	4.9		Adaptation to environment and climate	161	2.8
				Linking people to environment	5	.1
				Ventilation	28	.5
				Lighting	19	.3
				Consideration of orientation	6	.1
				Shade provision	5	.1
				Energy dependency	19	.3
				Water table level	13	.2
				Cleanliness	19	.3
				House health range	27	.5
				Ease cleaning	30	.5
				Health benefits	17	.3
				Environment health	13	.2
				Rain and flood	16	.3
				Indoor air-conditioned space	11	.2
			Total		**389**	**6.7**

Table 8.89: Dimension list

Continuation of table 8.89

Dimensions	Freq	Perc		Reasons	Freq	Perc
				Noise level	83	1.4
				Recreation and entertainment	177	3.0
				Visual comfort	30	.5
				Traffic flow	136	2.3
				Correlation with the sea	52	.9
				Security	35	.6
				Simplicity	36	.6
				Luxury	25	.4
				Tranquillity	28	.5
				Feeling of belonging	17	.3
Psychological	917	15.8		Sentimental feeling	34	.6
				Liveliness	86	1.5
				Secure environment for children to play	11	.2
				Landmark	31	.5
				Consideration of human scale	6	.1
				Variety in the daily routine	66	1.1
				Feeling of kinship	10	.2
				Human dimension consideration	1	.0
				Safety	46	.8
				Open air	7	.1
			Total		**917**	**15.8**
				Space size	69	1.2
				Quality of finishes	16	.3
				Design	110	1.9
				Availability of modern equipment	25	.4
				Development of traditional architecture	6	.1
				Lighting level	1	.0
				Continuity of space	24	.4
				Shaded car parking	8	.1
				Utilisation of area in design	34	.6
				Relationship between functions	11	.2
				Transformation of traditional architectural elements	10	.2
				Design convenience to people need	22	.4
				Convenience to a modern way of life	57	1.0
				Local building materials	18	.3
				Architectural details	20	.3
				Size of Building	36	.6
				Excessive use of glass	17	.3
				Modern building materials	6	.1
				Buildings strength	9	.2
				Furniture movability and arrangement possibility	16	.3
				Standards conformity	20	.3
				Sufficiency for family size	18	.3
				Space co-ordination	4	.1
				Guest reception comfort	1	.0
				Creation and change possibility	2	.0
Architectural	924	115.8		Excessive use of wood	3	.1
				Movement easiness	25	.4
				Diversity of building materials	11	.2
				Maintenance	49	.8
				Building condition	26	.4
				Opening size	2	.0
				Interior open space	14	.2
				Angles vision	9	.2
				Designs repetition	7	.1
				Colours	14	.2
				Construction speed	6	.1
				Horizontal relation between spaces	5	.1
				Adaptation with modern activities	11	.2
				Design flexibility	3	.1
				Diversity of ideas	9	.2
				Utilisation of modern technology	6	.1
				Vertical relation between spaces	5	.1
				Decorative and architectural elements	8	.1
				Bay windows (Rawshan)	3	.1
				Excessive building	9	.2
				Building mass and ratio	7	.1
				Building transparency	1	.0
				Materials performance	19	.3
				Architectural identity	107	1.8
				Design convenience to the use	5	.1
			Total		**924**	**15.8**

Continuation of table 8.89

Dimensions	Freq	Perc		Reasons	Freq	Perc
				Proximity to work	14	.2
				Proximity to family houses	10	.2
				Proximity to shopping centres	11	.2
				Proximity to city centre	18	.3
				Proximity to the sea	20	.3
				Proximity to main roads	5	.1
				Proximity to airport	1	.0
				Proximity to schools	1	.0
				Location	17	.3
				Availability of facilities	56	1.0
				Accessibility to and from the Neighbourhood	6	.1
				Buildings quality in the Neighbourhood	37	.6
				Neighbourhood planning	52	.9
				The location of the Neighbourhood in or nearby north side of the city	13	.2
				Car parking	52	.9
				Availability of sewage system	19	.3
				Quality of street paving	53	.9
				Constant flow of water	5	.1
				Street lighting	36	.6
				Width of street	120	2.1
				Population density	16	.3
				Proximity of buildings	5	.1
				Open spaces hierarchy	6	.1
				Schools location among houses	4	.1
				Mixing of buildings types and heights	12	.2
				Buildings set back	1	.0
				Roads junction	1	.0
				Empty plots	2	.0
				Size of plots	4	.1
				Accessibility to all districts	25	.4
Planning	1153	19.8		Mixing of activities	19	.3
				Proximity to industrial activities	5	.1
				Conformity to building convention	13	.2
				Existence of community centre	37	.6
				Unification of building colours	5	.1
				Street legibility	7	.1
				District administration office	1	.0
				Traffic lights	47	.8
				Variety of shops and services	92	1.6
				Markets and commercial activities	33	.6
				Neighbourhood location	12	.2
				Visibility of neighbourhood entrances	3	.1
				Traffic accidents	7	.1
				Service road	3	.1
				Street's overall appearance	8	.1
				Street zigzag	2	.0
				City's overall appearance	54	.9
				Street continuity	3	.1
				City development	32	.6
				Accessibility to and from the neighbourhood	7	.1
				Building codes	2	.0
				City expansion	4	.1
				Urban environment identity	17	.3
				Provide good living environment	14	.2
				Enhance urban and architectural environment	14	.2
				Proximity to services	20	.3
				Services availability	59	1.0
				Services quality	6	.1
				Skyline	3	.1
				Traditional city's overall appearance	2	.0
			Total		**1153**	**19.9**
				Place beauty	18	.3
				Elevation aesthetics	117	2.0
				Traditional building aesthetic	6	.1
				Aesthetic values	223	3.8
				Harmony	6	.1
Aesthetical	484	8.3		Neighbourhood aesthetics	38	.7
				Toward good view	2	.0
				Naming city 'Bride of the sea'	5	.1
				City aesthetic	69	1.2
			Total		**484**	**8.3**
Total					**5542**	**95.4**
Missing					**332**	**5.6**
Total					**5808**	**100**

8.5.1 Economic Dimension

Economy is a major generator or the driving force that influences cities and urban centres. The growth and development of cities and urban centres is mainly related to their ability to develop their economy. Economy also has a direct relationship to people life in terms of their ability to achieve a suitable standard of living (see Chapter Four Section 4.5)

From the past until now Jeddah was one of the most important economic centres in Saudi Arabia. The city economy played a major role in forming the city identity. The life of Jeddah's inhabitants was, and still is, connected to its economy through commerce and other activities (see Chapter Seven Section 7.2.3).

As shown in table (8.89) most of the responses on this subject were related to the city economy. The respondents saw that in order to develop the city, they should develop its economy through finding more revenue sources such as commerce, tourism and other ways to benefit from the potential of the city. The cost of living was another important subject in this dimension. People mentioned economics related to their built environment such as the high cost of building and maintenance and many other factors behind their way of life.

8.5.2 Socio-Cultural Dimension

To attempt an analysis and explanation of human behaviour in the environment without reference to social organisation in all its aspects would be doomed to failure (Leboyer 1982). The socio-cultural dimension is very important in its physical manifestation in shaping the built environment. It is the supremacy of religion, way of life, beliefs, values and norms, customs and traditions of people. In fact, direct observation allows us to determine how the arrangement of the environment reflects socio-cultural

organisation. In addition, social behaviour mostly takes place in public spaces where each individual defines and defends a personalised territory (see Chapter Four).

Human societies consist of specific characteristics which set up the complex pattern of relationships in which people encounter one another, transmit information and simply coexist. These patterns require spatial contexts and some built environments will encourage certain behaviours. The development of this spatial network is tied into the social network. Neither is the cause of the other, but they are an intrinsic part of each other. As a result social characteristics are frequently visible in spatial elements. The visibility of social characteristics in the physical environment allows cultural identities to be visible (see Chapter Four Section 4.4).

Man is a social creature and has of social needs. Jan Gehl (1987), in his studies defines man's social needs and divides them into: needs of contact, where people need to meet each other in a social atmosphere; needs of identity, where everybody needs to be within a group; needs to feel *belonging* to a particular group, family or community; needs of knowledge, familiarity with other people in the society and knowing their way of life, traditions and customs is a comfortable sense and feeling; and finally, needs of entertainment, feeling at ease, happiness and relaxation to have. Therefore a town plan which is unable to offer the possibility of satisfying these needs is likely to be unsuccessful (Gehl, 1987). From the survey responses, people's understanding of this issue came through their mention of many adjectives and activities which are available or missing in their modern environments such as social interaction, social coherence, society co-operation and participation, privacy, family coherence etc. This indicates that people are primarily bound by a common worldview of ideals and choices and by a set of social rules and values, which at the end produces their life style and manners as embodied in their image of their local environment (see Chapter Four section 4.2). In

turn, these principles and values influence the city and the house formation. Thus, the form of the built environment is a cultural expression of the society, translating the social values into buildings and spaces, into physical containers, in which the society lives and evolves. In other words, people can influence their environment in the way that they communicate with it (see table 8.89).

In this dimension it is clear that, among the respondents, there are two conflicting tendencies. One, which is the majority, supports the preservation of our original heritage and the city's general identity (built environment, way of life, tradition, norms etc) by restoring traditional buildings, increasing people's awareness of their traditional built environment and teaching the new generation their heritage. The other direction promotes modernisation and the modern way of life by educating the society and advocating more communication with other cultures (see table 8.89).

8.5.3 Religious Dimension

Religion is one of the important dimensions that determine the identity of people and it can also influence the way people perceive their physical environment. One of the main functions of many religions is the maintenance of a harmonious relationship between people and their physical environment (see Chapter Four Section 4.4).

The city's religious role as a gateway to the two holy cities Makkah Al-Mukarramah and Al-Madenah Al-Munawarah is one of the important aspects people mentioned that determined the city identity. Religion was attributed to the formation of the physical environment. In the traditional city of Jeddah, the religious dimension has a considerable role in forming the built environment, the city in general and houses in particular, where spaces were arranged according to the level of privacy needed in each. Also the values of Islam are reflected in people's daily life and interaction.

Respondents mentioned in this dimension the importance of considering religious aspects in planning and design in the contemporary city, which is the thing that they miss from the traditional town planning. They also mentioned the importance of knowing our religious duty in building a good environment (see table 8.89).

Mosques were the most important religious buildings in the traditional city. They dominate the townscape with their landmark minarets. Religion, law and education were integrated within mosques, which also provide places of secular activity, such as eating and drinking, as well as providing recreation for many people. As a result of the city's expansion the need for public services multiplied accordingly, and most of the mosques' functions were distributed among other institutions. Thus, mosques became predominantly sanctuaries for the practice and observance of religious and spiritual rituals.

8.5.4 Landscape Dimension

Landscape and landscape elements constitute another of the most important aspects that distinguish any built environment. The landscape and the availability of open spaces in an area or street are of the important qualities of preference for people. One of the most important qualities of the traditional city of Jeddah that people miss in the contemporary built environment is the pedestrian area. The built environment does not encourage pedestrian, to walk, rather it encourages them to use vehicles. Also people see that the lack of consideration of exterior spaces of building and the lack of integration between buildings and landscape element in the contemporary city of Jeddah are among the important qualities that should be seen in city. Sculptures and other landscape elements, which are widespread in the contemporary city of Jeddah, are seen to be a part of the city identity.

8.5.5 Environmental Dimension

One of the responses most frequently mentioned as an important character was the environmental issue. The environmental dimension in interpreting the built environment affects people's perception in many aspects. Firstly city planning and dwelling design in any region are influenced to a great extent by the natural environment of this region. In constructing a shelter, over centuries, man has always taken into consideration these factors, sometimes consciously in a systematic way but more often by following traditional methods, themselves the result of generations of experience and experiment. Certainly this is what can be seen clearly in traditional settlements worldwide. Natural environmental effects determine the choice of site, width of streets, building compactness, orientation, building form, the degree of the roof inclination, wall thickness etc. Moreover, climate affects forms, size and the location of openings in buildings. In short, it can be said that the traditional towns adapted with their environment, local climate and nature. Thus, plans developed with the climate and performed at various scales, providing coherent solutions at all levels starting from the dwelling unit and the street up to the city scale (see Chapter Three).

The issue of the natural environment is important to people. They mentioned many environmental aspects which they thought were important for their life and built environment such as adaptation to environment and climate, ventilation, lighting, Energy dependency etc.

Secondly the healthy environment is an important issue to people. The religion of Islam encourages people to be clean and healthy in all their aspects of life. If the built environment is clean then this will enhance its general appearance. One of the most important reasons for choosing a neighbourhood or quarter to live in according to

respondents was its level of cleanliness. Also the health effects of the house were borne in mind, people, for example, stating that they do not like to live in a house which is not well-ventilated or has damp walls and roof.

8.5.6 Psychological Dimension

In their responses, the interviewees have expressed their feelings and emotional preferences by using terms such as quiet, visual comfort, crowd, correlation, security, simplicity, luxury, tranquillity, feeling of belonging, sentimental feeling, liveliness, safety and feeling of kinship. Abdalla (1998) wrote that the quality of the traditional city could be observed, perceived and understood in various manners, for example:

Sounds: in a city, one can hear several voices, from waking up in the early morning until evening. In the daily life at the market, there are many different sounds such as work songs, distinct to each craft, composed of the rhythmic tapping or hammering or swaying of the craftsman. It is the opposite at night where silence promises a deep sleep.

Smell and taste: as one walks in the city streets or in the market, one experiences the smells of incense and herbs. In the coffee shops, one is also struck by this characteristic odour, with its marvellous taste of Arabic coffee and traditional food.

Sight: in the old cities, every part, starting with the external walls to the single room in the house unit, was carried out and perceived as a piece of art, built or furnished carefully and skilfully. The market route (suq), for instance, was an expression of a spirit of quality, the display of goods and things adding great visual excitement, where each single item in the market was closely related to this quality. Most of the shops were famous and well-known to everyone in the town, not because they had portentous

names in huge letters nailed on their shop front, but because of their reputation for honesty and readiness, and because the relation between the customer and the merchant is one of friendship rather than as buyer and salesman.

Another aspect of quality is seen through the people's deep relationship with nature. They were always trying to make the sea as part of their life. Another thing worth highlighting about the traditional city is that it was built to human scale, so who lives in it or the passer-by in its streets, should never feel diminished by the architecture.

8.5.7 Architectural Dimension

As shown in table (8.89), the architectural dimension came forward as one of the most dominant in the responses. Features like design, architectural identity, size of spaces, convenience to modern way of life and maintenance came high in the list of responses. People's understanding of architecture is more than just as objects and spaces for shelter. Architecture for them is also an expression of culture, beliefs and social and economic structure (see Chapter Five).

The table also shows that people are concerned about their traditional architecture. They expressed their interest by mentioning some of its elements as the most significant or as methods that should be taken in consideration in design such as the use of local building materials, transformation of traditional architectural elements, development of traditional architecture and the bay window (*Rawshan*). At the sime time they like their buildings to be convenient to a modern way of life and adapted to modern activities.

People also mentioned a number of design qualities which they would like to be taken into consideration in modern developments, such as continuity of spaces, good

utilisation of area in design, design convenience to people needs and relationship between functions.

8.5.8 Planning Dimension

In its organic manner, the traditional city was formed as a complex of spatial patterns. This pattern emerged partly due to the fact that there were no theories or what are known nowadays as master plans, to direct the building or limit their imagination. Only by trial and error, together with natural intuition, did the builders fulfil their objectives. In short, the organic design is a free arrangement into which any desired change could be accommodated within a total harmony, in other words forming a responsive, flexible and adaptable development coping with any contingent need. It is the outcome of interaction of many different factors including the social, cultural, religious, climatic and economic (see Chapter Five).

The organisation of the contemporary city planning dimension is the most important that people mentioned covering many aspects and qualities related to the city planning and development that it should be taken into consideration or restudied. These include building codes and regulations, the quality of the urban and architectural environment and the availability of services and facilities (see table 8.89).

8.5.9 Aesthetic Dimension

The easiest way to give a reason for liking or disliking any particular element is to give an aesthetic appraisal. Aesthetic experiences are expressions of objects and emotions. One of the fundamental goals of design has been the aesthetic one - the creation of cities, buildings and landscapes.

In attempting to understand the nature of the aesthetic experience, Santayana (1986) found it useful to distinguish between the sensory, formal, and symbolic interactions among people and their built environment. Sensory aesthetics is concerned with the pleasurableness of the sensation received from the environment. It involves the arousal of one's perceptual system, is multidimensional, and results from the colours, odours, sounds, and textures of the environment. Formal aesthetics in architecture is concerned primarily with the appreciation of the shapes, rhythms, complexities and sequences of the visual world, although the concepts can be extended to the sonic, olfactory and optic worlds. The appreciation of the associational meanings of the environment that gives people pleasure is the subject matter of symbolic aesthetics.

Respondents reflected their perception of architectural aesthetics by using terms like beautiful, nice, good and simple to indicate their satisfaction or preference. However, the old town has very important environmental and aesthetic characteristics. Its variety of buildings and other features serves to remind people about the past, providing insights into the culture and history of previous generations.

Consideration of these variables raises an important theoretical issue: if we are to have a subject, aesthetics, then in general it must be concerned with features or qualities of the materials. It is straightforward to show that it cannot be concerned with preferences, since preferences arise for all sorts of reasons, many of which are quite clearly not aesthetic. Aesthetic psychology therefore must study the responses of people as part of the task of distinguishing and classifying the features of the material (in this case, the city) to which they are responding.

Respondents liked certain buildings in the city of Jeddah because of the quality of the materials, such as marble, which are known for their durability. The size of the building or object affects people's appreciation. It has been observed that people in the city of Jeddah like certain building or streets because of their size, like Al-Malek street or the National Commercial Bank Building. The quality of paving and street furniture (such as railings, lamps, and fountains) has also affected the aesthetic experience. The aesthetic features or qualities of urban settings in turn affect people's judgement. The effect of novelty and familiarity, for example, was clear in people's appreciation of the built environment in the city of Jeddah. A building like Al-Mahmal Commercial Centre has been appreciated because it is new and modern. On the other hand, the old mosques, baths and palaces have been positively evaluated because they are historic. Aesthetic quality may be assumed to contribute to the character or identity of the place, because our mental map of a city is constructed from landmark places (Devlin, 1990).

8.6 Summary of Findings

The previous analysis underlines several important issues. These all relate to the evaluation of traditional settings versus modern ones. The findings in general come from people's experience of their own built environment and can be summarised as follows:

1) The sample tends to go for a residence of the villa type for reasons of ownership, facilities, and convenience for Saudi families. On the other hand they tend to go for the flat type because of lack of economical ability and their proximity to work places.

2) 39.1% of the sample consider the outdoor areas are not necessary or not properly used either because of their inappropriate space or lack of privacy. Dining rooms were mentioned to be not necessary because of their unsuitability to the Saudi traditions.

3) The aspects that are most liked in Jeddah traditional houses came up as mainly aspects of the exterior look of the buildings. The functional and social aspects were hardly referred to. What even supported this finding in that 55.53% of the reasons mentioned were all related to architectural and aesthetic dimensions. However, the awareness for the functional values of the traditional elements was traced in the responses of some of the respondents such as 'ventilation' and relation between interior and exterior' as reasons for liking of the Bay Window (Rawshan).

4) In the sample preference test of their neighbourhoods, the physical aspects (such as quietness and proximity to services) were significantly dominant over any social or cultural aspects. The only social or cultural aspects were mentioned in response to dislikeness question and they are the lack of 'neighbours interaction and bonds' and 'open spaces'.

5) Proximity to the sea was a significant factor to the people's preference of the place they want to live in (10.2%). However, it was in the third place after 'building quality in the neighbourhood' (12.5%) and neighbourhood aesthetics' (10.8%).

6) The sample in their response to the things they would like to see in their neighbourhood gave great importance to social interaction initiators such as 'community centres' and 'open spaces'. These two elements account for 39.1% of all responses. Notice here that all the respondents live in contemporary neighbourhoods.

7) Social aspects of interaction, co-operation and self-administration in the traditional neighbourhood account for 89.9% of the positive aspects that the respondents see in them.

8) It was significant in the question about the identity of Jeddah that the general role of the city has an important function with 30.4% of the responses refer to it as given this identity. It was in the second rank after the natural environment and location (32.5%) and was followed by the built environment and architecture (29.4%). Finally, socio-cultural environment scored a small percentage of their responses as 7.7%.

9) The search for reasons behind the elements mentioned to be giving identity of Jeddah, the economic dimension plays an important role in the selection of these elements (33.3%). Socio-cultural dimension was found in only 7.2% of the responses.

10) The crosstabulation between the elements giving identity to the city and the dimensions caused their selection reveals an interesting point. This point is the clear relationship between Jeddah's identity as being on the Red Sea and the economic dimension.

11) The identity of the traditional city of Jeddah, on the other hand, showed significant property that is the increase in the importance of the 'built environment and architecture' and 'the socio-cultural environment' in comparison to Jeddah in general. That of course was encountered by the decrease of the importance of 'city role and economy' and 'natural environment and location.

12) Dimensions those stimulate the selection of the elements give identity to the traditional city of city witness a significant decrease in importance of economic (from 33.3% in contemporary Jeddah to 13.1% in traditional city) in the favour of socio-cultural dimensions (from 7.2% to 19.1%) and architectural dimensions (from 9.8% to 14.1%). All other dimensions seem more or less similar.

13) Sample preference of streets, buildings, recreation places, shopping places, and building materials show a significant attitude towards raising functional and physical aspects and reasons with very few traces of either connection with the local natural environment or local socio-cultural characteristics of Jeddah. These traces were found in building materials suitability to the environment and architectural identity of the city. It was also traced in the sentimental feelings the Saudis has for the centre of the city which is part of the traditional city.

14) The changes that the respondent regret to have them in the city are those happened due to the pressure on all types of resources in the city either natural like the sea, economic like the increase in shopping centres, geographic like the expansion at all borders of the city, historic like the replacement of many important old buildings for the favour of modern blocks. These changes, the respondents say, to have negatively affected the functional and social aspects of their daily life and it also negatively affected the appearance and caused a shift in the role of the city.

15) On the other hand, when asked for the changes they like to see in Jeddah, the respondent's answers were dominated by landscaping and urban management changes (60.3%). The majority of the changes were to ease the functional aspect of the city and

those targeting the development of a better visual and social environment were clearly in the second priority (39.7%).

16)) The contemporary customs and traditions of Saudis in Jeddah reveal the marginal role the neighbourliness plays in the contemporary city of Jeddah and the dominance of relatives and friends on almost all kind of social life and interaction. On the other hand, neighbourliness plays a significant role in the old town of Jeddah and involving in 45.8% of customs and traditions in the traditional life style.

17)) The influence of the means of social interaction and coherence on the character of the traditional city was significant ((63%)) in to the responses of the sample.

18)) The complexity of the planning procedure, considering the city size, and the existence of specialists are forming one group of reasons (51.1%)) for people not participating in the city planning. On the other hand, factors that could be categorised as socially related account for the rest ((48.9%)). Within socially related factors, it was clear that the modern life style does not promote social coherence but rather force an individual and personal attitudes.

19)) The attitude of the respondents seems to be towards the monumentalisation of the old town of Jeddah as 80.1% of the changes they would like to see their directly mean that. Moreover, the rest of the changes do not want the area to be rehabilitated and only 3.5% of the responses want to develop the buildings to suit the modern way of life.

20)) Despite the dominance ((23.9%)) of aesthetic values on the advantages respondents mentioned of the traditional architecture, they express great appreciation of other

environmental appropriateness and social suitability aspects through out the rest of their responses.

21) The disadvantage of the old town is mainly their inappropriateness to modern way of life. However, an important aspect was raised that is the high cost of these kinds of buildings considering their ornamented architectural style.

22) The modern architecture in Jeddah was praised mainly for its suitability for modern way of life and the variety it offers. On the other hand it was blamed for high building cost, lack of identity, social interaction depression, and environmental inappropriateness.

CHAPTER NINE: JEDDAH IDENTITY AND CHANGE

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(9)

JEDDAH IDENTITY AND CHANGE

9.1 Prologue

This chapter examines and evaluates the change in the identity of the city of Jeddah from the traditional to contemporary environments with a special focus on how Saudis perceive it. The core concept is that the modern environment is not a natural descendent of the traditional one. The research so far has investigated the concept of identity in the literature, the evolution of Jeddah through its main historical phases, and how Saudis perceive the city. The aim of this chapter is to integrate the findings from these three inquiries and clarify the interrelationship between them.

The strategy adopted here is to investigate the changes in the elements of the city, the reasons for those changes and their meanings to people. This chapter addresses the four elements constructing the identity of the city. They are the city role and economy, the natural environment and location, the socio-cultural environment, and the built environment. The latter two elements are each subdivided in three parts, each part is a shift from the larger to the smaller scale. The socio-cultural environment is discussed at the scales of society, community and family. The built environment is discussed at the scales of city-neighbourhood-house.

The four elements operate as an integrated system. Each element is constituted of number of factors. The degree of change in city identity depends on the degree of change in each element through its included factors. It was found, from the results of the questionnaire, that the importance of each element in forming the city identity varied

between the traditional and the contemporary city. For example, *built environment and architecture* formed about 48% of the elements that influence the city identity in the traditional city of Jeddah, whereas this dropped to 29.4% of the elements that influence the identity of the contemporary city of Jeddah (see table 9.1). These changes are discussed in the following sections.

FACTOR	TRADITIONAL CITY	CONTEMPORARY CITY
City role and economy	13.8%	30.4%
Natural environment and location	20.3%	32.5%
Socio-cultural environment	17.9%	7.7%
Built environment and architecture	48%	29.4%
Total	100%	100%

Table 9.1: Comparison between traditional and Contemporary City of Jeddah, the change in percentage of elements influencing the city identity.

(For more details see Chapter Eight Q11 and Q12)

9.2 City Role and Economy

Each city image contains a main role or function; for example one might say a city serves as an industrial, touristic, commercial or religious city. This role is an important feature which influences the city identity (see Section 4.5 Identity and Economy).

The questionnaire results suggest that the city role and economy formed about 13.8 % of the elements that influenced the traditional city identity compared with 30.4 % of the elements which formed the identity of the contemporary city (see Chapter Eight Q11 and 12). This change is due to the new roles which have been added to Jeddah.

The main role of the traditional city of Jeddah was as a seaport serving as a gateway to the two Holy Cities Makkah al-Mukarramah and Al-Madenah Al-Munawarah, in addition to any commercial role within the region. The contemporary city of Jeddah

maintained part of these traditional roles. However, it now carries new roles such as tourism and industry. It is not so easy to distinguish whether the contemporary city of Jeddah is foremost a seaport or a commercial, touristic or industrial city (see Section 7.2.3 The City Role and Economy).

9.3 Natural Environment and Location

Natural environmental factors have a significant influence on the identity of people and their cities (see Chapter Three). Bokhari (1978) described the importance of the natural environment and location in forming the identity of Jeddah, pointing out that Jeddah's prestigious location on the Eastern shore of the Red Sea has created a distinct culture and an urban architectural environment. Jeddah's inhabitants even gave their city a name '*Bride of the Sea*' in celebration of the relation between it and its natural environment. This has been a strong influence in forming the image of the city identity (see table 8.89)

The percentage of importance of the natural environmental factor in forming the identity of traditional and contemporary city of Jeddah according to people's opinions changed from 20.3 % in the traditional city and 30.4 % in the contemporary city (see table 9.1). Taking the sea to be the major element of the natural environment of this city of Jeddah, we could refer this increase to two reasons. Firstly, the sea is the only element which is, to all intents and purposes, changeless. Secondly, people associated more dimensions and meanings such as tourism, recreation and nostalgic/sentimental attachment to the sea (see Chapter Eight Q11 and table 8.34). However, the sea has lost a number of its traditional meanings to people, such as being involved in their daily life and influencing the orientation of houses towards its cooling breezes, at the same time as retaining a number of these meanings such as the source of the city's beauty (see Chapter Eight Q12 and table 8.37).

9.4 Socio-cultural Environment

The change in the socio-cultural environment has been remarkable over the last fifty years and has been felt as a great amount of change in living and working conditions. Once a small town which accommodated a population of about 50,000 inhabitants Jeddah had become a big metropolis by the middle of the twentieth century, accommodating over 1,500,000 inhabitants in 1991 (see Chapter Seven Section 7.4). About half of the population came from different cultures and have brought along traces of their different backgrounds. The advantage of the traditional society of adapting customs, norms and habits of different nationalities yet remaining intrinsic to Jeddah does not seem to exist any more.

According to the questionnaire, the influence of socio-cultural factors in forming the identity of the traditional city of Jeddah is about 17.9%, compared to only 7.7% in the contemporary city (see table 9.1). This big difference is due to many changes in the family, community and society levels which have weakened many traditional socio-cultural forces. In the following parts the author discusses the change at each level and some reasons behind changes.

9.4.1 Changes in the Society

Jeddah's traditional society represented an Islamic Arab society. The city's cultural traditions evolved from Islamic law. The city inhabitants were heterogeneous insofar as they shared a common religion and language (see Chapter Seven section 7.4.1.3). In the past the society of the traditional city of Jeddah was able to adopt the foreign customs and norms into its own distinctive identity.

Jeddah's society was unable, however, to assimilate modernisation without losing their uniqueness (see Chapter Seven section 7.6.1.3). The contact of Jeddah's society with other societies and cultures through work, travel and education, as well as the aspirations of the people for a more convenient way of life has influenced the traditional pattern of life and has led to the emergence of new building styles which have less respect for the residents' larger, social requirements (Alharbi, 1989).

The questionnaire also shows that the society of the contemporary city of Jeddah adapted new customs and traditions which did not exist among the society of the traditional city of Jeddah, such as friends gathering to play cards, travelling, and playing football and keeping in touch with sports news. They also maintained a number of their traditional customs such as eating traditional food (especially fish), social participation and interaction (see Chapter Eight Q23 table 8.68).

The important customs and traditions which characterised the traditional city of Jeddah and which people would like to see in the contemporary city were mainly related to the *Eids* ceremony such as folklore, visits between neighbourhoods residents, and the giving of *Eid* presents (*Eidiyah*). Some of the customs and traditions which people mentioned are related to marriage ceremony, such as holding the marriage ceremony in open neighbourhood spaces and on the houses' roofs and giving the marriage gift or support (*Rifd*). Others were associated with the relationship between an individual and society such as co-operation and participation, social coherence, respecting the system and the law, integrating the mosque with daily life and interaction (see Chapter Eight Q 27 table 8.76).

9.4.2 Changes in the Community

The questionnaire shows that the customs and traditions people liked the most and which they would like to see in the current city are mainly related to community role and interaction[1]. For example people wish to see neighbour interaction like visiting each other, gathering and co-operation. They also want to see children playing and gathering in outdoor spaces which are part of a secure and self-policing neighbourhood (see Chapter Eight table 8.76).

The contemporary community is nothing more than a number of houses in one place. The neighbourhoods or quarters are not designed to accommodate and promote different social activities. The distance between neighbours has increased; roads form a barrier and are a danger between houses. The responses to the questionnaire concerning the most important customs and tradition which characterise the contemporary city of Jeddah show that most things people mentioned related to the family and society. The role of the community is absent (see Chapter Eight Q 23 table 8.68).

9.4.3 Changes in the Family

The basic unit of any society is the family and this finds its ultimate strength among traditional Muslim people. In discussing any matter related to the family it is necessary to recognise its true context; the house. The family type, way of life, and ideology are all important factors that influence the house identity and later the general identity of the built environment (see Chapter Four).

The traditional extended family household of Jeddah has given a way to the nuclear family household. When people were asked to name any customs or traditions which characterised the traditional city of Jeddah and which they would like to see in the

[1] By community the author means the group of people living within one neighbourhood

current city, 6.1% of them mentioned the extended family household (see Chapter Eight Q 27 table 8.76). As a result of this change in the family system the housing unit changed from the large family house to small units such as flats, detached and semi-detached villas (see Chapter Seven Section 7.6.2.8).

The way that Jeddah's families are used to living today is radically different from the way they lived before the 1950s. The past the way of life is seen to have been simple, one of the important socio-cultural features which people frequently mentioned as reflecting the traditional city identity (see Chapter Eight Q 12 table 8.35). The family way of life has become more complex, and more related to outdoor activities and meetings rather than to the house. Most family members today spend much of their time outside the house, in work or at school, while new activities such as shopping, recreation and eating in restaurants been added to the daily activities (see table 8.82).

New families in Jeddah have adapted to these new customs by integrating traditional ones. For example family members once gathered at the large family house (the parents' house) once a week, they also gathered at certain occasions such as *Eid Al-Fitr* (the meal of breakfast). They also incorporated some habits such as staying up until late at night (see Chapter Eight Q23 table 8.68).

9.5 Built Environment and Architecture

9.5.1 The Change of the City Identity

The unprecedented speed of development of architecture in Saudi Arabia in the twentieth century has given little chance for an evolutionary process where new technical tools and building methods could be tested and absorbed into the principles and laws of the existing culture. Accordingly, in the modern environment, planning policies have taken over from social or cultural policies. The urban structure of the city

has thereby changed from an organic to a geometrical pattern, from integrated residential and commercial areas to segregated residential areas located in between the intersections of the major roads (see chapter Seven Section 7.4.2.1 and Section 7.6.2.1).

It has been found from the questionnaire that the urban fabric of the traditional built environment formed about 9.8 % of the elements that reflects the traditional city identity while only one person 0.8 % saw the contemporary city planning as an element important to the city identity (see Chapter Eight Q11 and 12).

The grid network replaced the traditional hierarchical web of streets and alleyways. The newer streets are very wide. They do not provide the shade that comes from building narrow streets with many niches and sheltered corners, and the end result encourages people to drive not to walk. The relationship between the person and the community has become weak. Once leaving the house, one is transplanted into the city without emerging into public space through an intermediate hierarchy of spaces. The contemporary built environment's movement system is mainly for the vehicle. The traditional pedestrian system, which consists of walkways at different levels of privacy and visual intrusion, is consigned to the past. This offers no opportunity for people to have direct contact with the environment and other people (see Chapter Seven Section 7.4.2.2 and section 7.6.2.2).

Open spaces have changed from being part of integrated entity of the built city to being isolated gardens surrounded by fences and streets (see Chapter Seven). Nor do open spaces in contemporary areas provide the same function as those in traditional areas, which were designed to encourage social interaction among the residents. The lack of safety in contemporary open spaces encourages most of the residents to keep their

children behind walls. Some traditions and customs, such as gathering outside the dwelling, have also disappeared, there being no place left for them to happen.

When people were asked about changes that they would like to see in the city in the future 9.2 % of them mentioned more consideration to open spaces and landscape. They mentioned many reasons behind this, for example that it would enhance the city appearance, it is healthy to have more green areas, it would enhance the social interaction, would provide secured environments for children to play and would encourage people to walk (see Chapter Eight Q22). It seems to be the case that the changes in the design and function of open spaces have had a significant impact on minimising social contact and encouraging individualistic attitudes among neighbours.

Mosques were important urban, architectural and spiritual elements of the traditional city of Jeddah. Their minarets dominated the skyline of the city. The importance of the mosque as urban element is no longer as it was in the past. The increased number of tall buildings makes the minarets invisible from a distance, and they no more control the skyline of the city (see Chapter Seven Section 7.4.2.6 and Section 7.6.2.6). When asking people about buildings they would like in the city of Jeddah they mentioned only three mosques: King Saud mosque, Al-Juffali mosque and Al-Shafi mosque (a traditional mosque). These formed about 5.4% of the total number of buildings they mentioned (see Chapter Eight Q15).

Shopping is an important and universal aspect of human life. It is for most people a necessity, for others a pleasure, and for some a hobby (Deasy, 1985). The city of Jeddah has maintained its role as a commercial centre for the Western Region of Saudi Arabia. During the economic boom, the city witnessed a huge investment in constructing

shopping centres, supermarkets and malls. The concept of specialist traditional market routes has been lost in the contemporary city although the traditional area maintained its role as the city commercial heart (see Chapter Seven section 7.6.2.4).

The questionnaire shows that most of the shopping places people mentioned were indoor, air-conditioned shopping centres. These elements, which have been only recently introduced to the built environment, have influenced the city's general appearance and also the way of life of its inhabitants. Shopping today has become an activity in that people go out just for shopping, while in the past it was part of other daily activities.

Feature	Traditional City	Contemporary City
Urban form	Organic, dense and integrated Response to the climate Definite and sharp	Geometric, low density and less integrated Not responding to the climate Not definite and not clear
Streets	Narrow and winding Responding to climate Adopting human scale With hierarchy from public to private Different in character and easy to distinguish	Straight and wide Not responding to the climate Adopting the vehicle as a scale With no hierarchy from public to private Regular and hardly distinguishable from each other
Open spaces	Integrated with surrounding Hierarchy from semi-private to public Used as gathering and meeting places	Surrounded by fences and streets Hierarchy of different sizes Visual function
Mosques	The most distinctive feature of the city Religious, social and cultural centre	Not the only distinctive feature Mainly religious
Shopping places	Market routes Centre for social and public life	Closed and unclosed shopping centres Centres for shopping and recreation
Recreational areas	Mainly sea activities	Variety of touristic and recreational projects
Residential areas	Houses near each other	Lots of land
The port	Part of daily life of people	Separated government institution

Table 9.2: Changes in the Identity of the Built Environment.

Tourism and recreation are strong themes of today's city of Jeddah. The city's natural and human-made assets encourage public and private sectors to invest in these fields. Within the city of Jeddah today there are a variety of touristic and recreational projects (see Chapter Eight Q 17 Table 8.50) that influence the form of the city. These projects

and buildings include a variety of activities that take place within the annual touristic festival which attracts many people every year.

9.5.2 The Change of the Neighbourhood Identity

The neighbourhood is a physical unit with a distinct identity reflected in social interaction and forming a social unit (see Chapter Five Section 5.4). The traditional neighbourhood was an integrated unit with a unified character and it consisted of family houses, mosques, open spaces and streets which were conduits of social life among people (See Chapter Seven Section 7.4.2.3). The contemporary neighbourhood is characterised by plots of land among a network of streets depending almost entirely on cars for movement. The relationship among residents is very weak (see Chapter Seven section 7.6.2.3).

Because of the lack of subjective qualities within the contemporary neighbourhood people see the objective qualities, such as proximity to services, neighbourhood location and availability of facilities, as things that they like or dislike. People feel that the social aspects of the traditional neighbourhood, which include social interaction and coherence, visits between neighbours and neighbours daily gathering, are among the qualities that they miss and yet are essential to providing a good living environment (see Chapter Eight Q10 table 8.29).

When people were asked about things that they would like to have in their neighbourhood they mentioned qualities that enhance the social life such as open spaces, a community centre and pedestrian areas. The change at neighbourhood scale is therefore remarkable in the city of Jeddah. The sense of neighbourhood exists no more in the built environment, there is no unity in the character between buildings within the

same neighbourhood and in the social environment there the relationship between neighbours is kept to a minimum as a result of planning.

9.5.3 Changes of the House Identity

Since the middle of the twentieth century, the identity of the house has changed dramatically as a result of many forces. In the past, houses in Jeddah grew over time, from generation to generation. Each son would build a room in his father's house within the extended family complex. The present research considers these houses as traditional. However, the new houses which have been built since the middle of the twentieth century are mainly single units (villas and flats) for nuclear families. These types are regarded as the contemporary house which in most of the people today live (see Chapter Eight Q1 table 8.9).

The possession of a house was, and continues to be, the ultimate objective for most Saudis. It is the place in which people feel secure and restful, and through which they can reflect their personality and group identity. For people in Jeddah, the house also provides the individual with different meanings. Indeed, it is a means of communicating status. It constitutes an important sphere of expression of cultural identity and provides an emotional refuge from the external world (see Chapter 5 Section 5.5). The major aim of this part is to describe the change in house and also to highlight their identity.

As demonstrated in Chapter Seven, the identity of Jeddah houses have changed dramatically in the last five decades. Indeed, people in Jeddah have found their environment changing from a traditional to a modern one within the life-span of one generation. This rapid change was pushed forward largely through imported, i.e. non-

indigenous, forces. Therefore an identity crisis has emerged within the society and the effect of modernisation has been drastic.

In the traditional built environment there were many factors that influenced the forms of houses, these being natural environmental forces, the economic situation and socio-cultural factors. The new form of the contemporary villa is a result mainly of the economic situation. It is a building surrounded by a garden enclosed by a wall, unlike traditional houses which stand near each other with no barrier. The garden is not private in the sense to which Saudi people have been accustomed; it is overlooked by neighbours. People therefore started to increase the height of their house fences by using metal barriers (some as much as 7m high) to provide privacy for the garden (see figure 9.1).

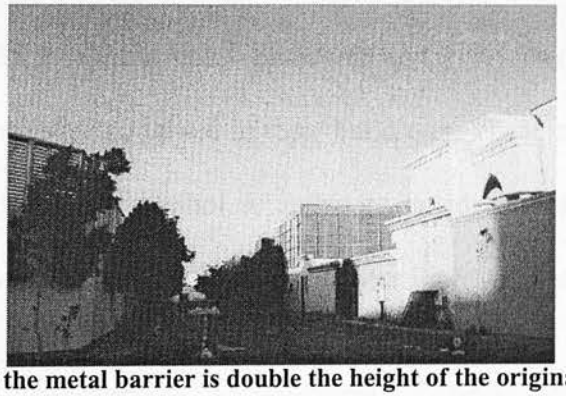

Figure 9.1: The height of the metal barrier is double the height of the original wall, 1998. Source: The author, 1998.

Z. Al-Lyaly (1990) wrote that: "the imposition of set-back planning regulations to meet concerns for access, ventilation and fire spread in new dwellings resulted in the evolution of a box-like structure sitting in the middle of a walled compound. This created a serious problem in achieving privacy between neighbours. One often sees long corrugated iron sheets fixed on top of the boundary walls between adjacent villas in an attempt to overcome the problem of overlooking from one building to another across the few metres of separation. Thus, the yard which surrounds the house is not private in the sense that family can socialise there, as it might be overlooked by neighbours" (Z. Al-

Lyaly, 1990, p 209). In addition, the intense heat generated in these enclosures prohibits the garden from being used before late evening.

When asking people about spaces in their houses that they though were not properly used, the foremost space mentioned was the house yard (garden) 20% (see Chapter Eight Q2 table 8.11). Traditional houses were small and compact but recently houses have increased in size due to building extensions that reduce private outdoor spaces which lead to, less efficient use of indoor spaces, and reflect the motivation of social prestige. As a result houses have become more expensive.

In the past building materials and techniques were unified throughout the city which led to a unity in the general form of the city (see Chapter Seven Section 7.4.2.7). The questionnaire shows that people mentioned a number of traditional building materials as being liked. Wood (25.3 %) and coral limestone (14.9 %) were along the building materials that people most liked to see in their buildings. These materials are no more used but people see them as a symbol of architectural identity and the most suitable materials to the environment and climate (see Chapter Eight Q19 table 8.56).

During the changes new and different building materials have been introduced such as concrete, steel and brick along with a variety of service fittings such as plumbing, electricity and air conditioning systems. People also mentioned a number of modern building materials they would like to see in their houses such as marble (16.1 %), paints (11.5 %), concrete and glass, which are seen as luxury materials reflecting the status of the house owner (see Chapter Eight Q19). The answers to Questions 19 and 20 showed a number of materials that people liked or disliked, such as marble, glass, strong colour paints and aluminium used in the façades. In addition new building techniques and

construction systems have brought about a drastic change in the local characteristics of the built environment (see Chapter Seven Section 7.6.2.8).

With the introduction of a variety of building materials and techniques, the unity of buildings has been lost and the relationship between locality and buildings has been almost entirely eroded. Concrete blocks have replaced the traditional coral limestone. Aluminium windows of glass panels have replaced the wooden *Rawshan* and *Mashrabiah* window forms specific to local crafts and resources. Machines and mechanical systems have replaced skilled manual labour.

As a consequence of the extensive use of modern building materials, without any pre-consideration of the climate conditions or the performance of these materials, mechanical cooling devices such as air conditioners, have had to be introduced to moderate the internal environment of all the new buildings in the city. For instance, reinforced concrete, characterised by a high thermal conductivity, is used as the basic material for roofs everywhere in Saudi Arabia, its standard thickness and treatment can not differentiate between hot, dry desert, hot-humid and cool climates (Al-Harbi, 1989).

9.5.3.1 Changes in the Exterior of the House

The analysis of examples in Chapter Seven reveals that the changes in the identity of the exterior of the house during the last fifty years have been substantial. For example, it can be seen that the windows in traditional houses received a great deal of attention, and have a wealth of wooden details and carved decoration, while glazing was unusual. Glazed windows are the predominant type in the contemporary house. These are mostly square or have a horizontal shape. Throughout the questionnaire, it was found that even though some of the new characteristics of the openings were inconsistent with people's

values and beliefs (e.g. the conflict between large windows and privacy), they are, however, appreciated and perceived as a sign of modernity and prestige.

When people were asked about aspects they liked about Jeddah's traditional houses most of the answers were directly related to the exterior of the house, such as the building façades in general, and their decorative and architectural elements. People mentioned the bay window (*Rawshan*), roof terrace (*Kharja*), use of local building material, main doors and parapet denticulation (see Chapter Eight Q3 table 8.14).

The entrance to the traditional house was an important element, for its characteristics reflect certain meanings. For example, its size reflects the hospitality of the owners and the decorations represent their prosperity. However, in the contemporary house, where the house is perceived as an independent unit set back from the street, the image of the entrance is not clear. Nevertheless, new architectural devices have been introduced to distinguish the entrance such as a canopy and a small flight of steps.

Air conditioning has had a significant impact on the living environment inside the house as well as on the exterior of the buildings. The wide openings of *Rawshan* and *Mashrabiah* of the traditional buildings have been replaced by small glazed windows and air conditioning vents. The appearance of the window-type air condition in the façades of the buildings creates an obtrusive effect upon the overall appearance of the buildings (see figure 9.2).

The roof maintains its function as an elevated open space surrounded by parapet walls. However, it seems that the roof of some of the new houses does not have the same role as it had in the traditional houses. This is due to the private outdoor spaces. It is also

hard to maintain privacy on the roof, as a result of the different heights of the different contemporary buildings, some of which overlook others.

Figure 9.2: the effect of the window-type air conditioning unit in the façades of the buildings. Source: The author, 1998.

After comparing traditional and contemporary houses, the author can categorise the characteristics of change in the exterior of the new houses in the following points:

(1) A new and wide variety of building materials, techniques and a variety of services such as plumbing and electrical systems.

(2) The location of the house on the site has changed. The contemporary house is now located centrally on the site and no longer built up to the site boundaries.

(3) New elements on the roofs have appeared as a result of new technology, such as television aerials, water tanks, air conditioning units and solar panels.

(4) The proportions of some architectural features have been changed. For example, the windows changed from being vertical to horizontal.

(5) New elements have been introduced to the house; the most common are balconies and the air-conditioning unit (window-type).

(6) Instead of white and pale green, people have started to use new and bright colours for their houses such as orange and yellow in varying tones.

9.5.3.2 Changes in the Interior of the House

After comparing the interior of traditional and contemporary houses, some changes were identified, including the layout, the use of places and the quality of spaces. Several characteristics of change in the interior of the contemporary houses emerged. These can be summarised in the following points:

(1) The spatial organisation of the traditional house into the domain of men and their guests (*Salamlik*) and the domain of family and the women guests (*Haramlik*) has been changed into a guests' domain which can be used by men and women, and a family domain.

(2) The layout of the traditional house, unlike the contemporary one, was never finalised and was constantly re-designed to adjust to the family's evolving needs, so that if a son is married, he can add a new room for his family.

(3) The hospitality and the integration of the ground floor in traditional houses with the exterior does not exist in the contemporary house; the walls which surrounded villas form a barrier for this interaction.

(4) A significant change that affects behaviour is the allocation of specific functions to each space. While in the traditional house the room was used for living, cooking and sleeping, in the contemporary house there is a separate room for each activity.

(5) The relationship between spaces within the contemporary villa is a horizontal relationship whereas it is vertical in the traditional house.

(6) The sizes of rooms in contemporary houses, especially the reception rooms, are bigger than were those of the traditional houses.

(7) Generally speaking, kitchens and bathrooms receive more attention in contemporary houses than those of the traditional ones in terms of sanitary and quality of finishing.

Feature	Traditional house	Contemporary villa
Forces influencing the house formation	Natural environmental factors Economic situation Socio-cultural factors	Mainly economic situation Comfort Hygiene
Location of the house within the site	Built up to the site boundaries	Located centrally in the site and bounded by walls
House size	Small	Large
Building materials and techniques	Limited to coral limestone, wood, mud and gypsum. Limited to the traditional way of building	Variety of materials such as concrete, brick, aluminium, marble and steel. Different techniques and methods
Windows	Wooden; carved and decorated	Aluminium frame with glass
Design	Compact plan Arranged around stair-case Men's reception in the ground floor Family's and women's reception in upper floors Multi-function spaces	Arranged around hall Guest reception and family living in the ground floor Sleeping rooms in the first floor Single-function spaces
Size of spaces	Small	Large
Relationship between spaces	Vertical	Horizontal
Relationship between interior and exterior	Good relationship through *Rawshan* and *Kharjah*	Weak relationship; perimeter wall acts as barrier

Table 9.3: The Change in the House Character

9.6 Summary of Findings

The city of Jeddah was initiated as a gateway of the noble sanctuaries in the Holy Lands developing as coastal Arab-Islamic city. Its development through time exhibited a homogenous existence with its natural environment and as a port city it absorbed different foreign cultures, fusing these into its intrinsic traditional identity. The ability to retain a consistent Jeddah identity, has been altered dramatically since the middle of the twentieth century.

The economic boom following the oil boom in Saudi Arabia has brought about a rupture in the economic role of various cities in the Kingdom; Jeddah's typical Arab-Islamic coastal city with its vernacular homogeneous, consistent, consistency driven

from its traditional ecological balance has been challenged and even diminished in favour of the modernity that came with the economic boom in the city. The change was rapid backed up by its heavy, newly introduced technologies that gave no chance for the traditional environment to compete. This can be seen in the modern planning of the city based on the grid and the linear lay out of its street verses the curvilinear traditional one. This planning took the car as its main unit and built for it.

Shopping is an intrinsic product of a culture based on consumerism. That becomes apparent in the shopping malls and indoor facilities and recreational spaces in general. In addition, vast greens and open landscape emphasising the sea that obtain a major increasing role as the only remaining unchanged natural element in the modern city; while during the hay-days of the traditional environment, the sea was an element among many others interacting with the built environment and contributing to its overall form. The sea is a major economic resource today for the tourist projects and the recreational places along its beaches. Last but not least are the public open spaces, integral important elements emphasised in modern city planning theory for their hygienic and aesthetic qualities. As a modern city Jeddah has many open spaces and extensive landscape parks especially along the seaside as a recreational open, public, recreational spots replacing that known as (*Baraha*) open space in the traditional built environment.

These modern trends, despite of being favoured by the people, have increased social segregation and the interaction that existed between the Saudi people of Jeddah, their traditional environment, especially at the neighbourhood scale. Today's people of Jeddah still appreciate the lost social and subjective qualities of the traditional environment and the interaction represented in the urban fabric between open spaces and semi-public, cul-de-sacs and that permitted and encouraged social co-operation.

These features have been lost in the modern linear and segregated modern neighbourhood. People continue to appreciate these qualities lost in the modern environment but still, acceptable for the objective qualities it offers (e.g., quietness, availability of modern services, such as schools, hospital, parking places, etc).

The modern house is appreciated for the quality of living it offers while the traditional house is valued more for aesthetical reasons concerning the consistency of its architectural elements, especially the elongated wooden windows (*Rawshan*), and constructional techniques creating a unity, as well as the high craftsmanship in the woodwork and the stone masonry. The materials also used in the traditional house, coral stones and wood are also favoured for being natural. On the other hand, modern materials such as marble cladding, aluminium windows and reinforced concrete are favoured for convenience to modern way of life. Also the newly introduced architectural elements, e.g., wide glazed elevation entrance flights are regarded primarily as a sign of wealth.

On a more subjective level, the traditional house maintained family integrity with the concept of the extended family house. Its welcoming guest areas on the ground floor, more interaction with the street, are very much enjoyed by the people of Jeddah, highlight a subtle comfort of privacy in the more allocated different gender quarters (*salamlik* and *haramlik*) of the private house. This has been replaced by a plan that sets the home around central hall for guests and family living. On the other hand, on a more objective scale, the modern house is regarded as a strong medium for personalising oneself and one's identity through the wide range of constructional and decorative materials available in the modern environment. That is to say that the complexity of the social (integrated) system in the traditional environment that was accommodated in a

relatively simple built environment has become a simpler social (segregated) system in the modern environment with a more sophisticated built environment.

In general, these preferences for different elements from both components of Jeddah, its traditional and modern environments, reflect huge social change indicated in its physical consequences. The modern environment is preferred for its conventional qualities that cannot be obtained in the traditional one while the latter is regarded as essential element for consolidating the identity of Jeddah and therefore that should perpetuates the original meaning of the city.

CHAPTER TEN: CONCLUSION AND RECOMMENDATION

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(10)

CONCLUSION AND RECOMMENDATIONS

10.1 Prologue

Earlier in this thesis the author explained the origin of the concern that gave rise to this research. As an architect and a citizen, he was troubled by the dramatic changes that have taken place in the built environment of Saudi cities and which threaten the loss of the transformation of identity. The effects of this change are evident throughout the social, cultural and built environments. It is the author's belief that the problem of maintaining a continuity of identity as reflected in the diversity of the Saudi Arabia's built environment does not lie at the surface, but is to be found in deeply held attitudes and principles underlying the process of its evolution.

It was therefore decided to use the concept of identity to help architects, planners, decision makers and ordinary Saudis maintain the evolution of their cities and their uniqueness and distinctiveness. The aim was to construct a means to examine the built environment according to how it conveys, interprets, expresses, enhances or confuses Saudi identity. The method was to build the concept of identity from the literature by exploring its component concepts to create a theoretical basis for moving towards a document review that compare the case study's traditional and contemporary environments, which gave the initial case for the concern of the research. From there the study sought to discover more from the Saudi people of Jeddah by the use of a questionnaire to assess those aspects that emerge from the theory and the case study.

The first part of this study, the theoretical perspective, examined in chapters two, three, four and five, explained the concept of identity and analysed its components. This part of the study led the author to propose that a meaningful human environment addresses the nature of its surroundings, the socio-cultural attitude of a specific group of people and their built environment. The built environment can be also conceptualised as one component among many meaningful social and cultural qualities that are used to fulfil human needs and the search for a meaningful existence. These qualities transformed over time from one set to another.

The second part of this study examined in chapters six and seven shows that Jeddah has experienced almost total change in its physical and social fabric during this time of national upheaval. This part concluded that the lack of consideration given to the factors that influenced the formation of the traditional built environment's identity and also the lack of consideration given to qualities that made the sense of place led to the city's current problem, a confusion of identity. These preliminary findings supported the theoretical part of this study.

The third part of this study, chapter eight (the empirical questionnaire) gave empirical support to the notion that Saudis in Jeddah suffer from a clear split towards either the traditional or the modern. It also added weight to the author's belief that the built environment suffers from discontinuity between the past and the present. The results also indicated that the built environment today does not reflect the characteristics of the natural environment and the underlying forces that formed the Saudi culture (in Jeddah).

The last part of this study is concerned with the integration of the results and conclusion observations (chapters nine and ten). It concluded that during half a century of rapid

change, the values and meanings Saudis (in Jeddah) attached to their built environment have been distorted. The total change in the identity of the built environment reflects a lack of consideration of the factors that influenced the formation of the identity of the traditional built environment and also of the qualities that made the sense of place. Then it summarised the research findings in the case study and made recommendations for maintaining continuity in the identity of the built environment. It also discussed further researches which could build on this study.

In sum, this thesis establishes an understanding of the built environment of Jeddah as a unique setting in regard to a specific group of people. It justifies this using the concept of identity as an umbrella to examine the influences of rapid change in the environment and accordingly in how Saudi people in Jeddah have expressed their identity, and by indicating the features that represent their identity in the city, the neighbourhood and the house.

10.2 Findings of the Literature Review

As mentioned earlier the research began with a theoretical review aiming at defining the concept of identity, its component parts and the process that underlies the production of identity. This part aimed to give an understanding of the concepts adopted in the current research.

Memory is implicit in the establishment of an identity. Identity embedded in culture is socially and historically specific. It is produced in the individual consciousness through life-long socialisation and the patterned experience of everyday life. Each generation has added some features to the built environment, such as buildings, streets and trees, which help establish the identity of their environment. The social rhythms of daily, weekly, monthly and annual routines and the biological passage of time through

childhood and adulthood to old age both represent actions, experiences, and ultimately identity within certain frameworks of the social world.

In order to establish a specific identity, manifestations of it must be shared and learned. To understand identity is to be able to define its characteristic manifestations in groups, sup-groups and individuals. However, each unit has its own characteristics which singles it out and gives it its individuality. Identity is not a still picture or a fixed frame, but rather it is an ongoing process of transformation. As a result the environment is the result of a system of transformation of physical and socio-cultural elements. Therefore, the definition of identity adopted in this research is a complex concept which grows out of a history of evolving responses to natural, economic, political and cultural forces.

There are three elements constituting the concept of the identity on the built environment: the character of the natural environment; the built environment; and underlying factors including social and cultural life, religion, patterns of behaviour and economy. In this sense, a place has a strong identity if there are clear interrelationships between its built environment, the cultural heritage of its occupants, and the surrounding context. The following is a more detailed description of the three elements as used in the research:

a) The *natural environment* is the predominant factor affecting the identity of people and their built environment. It was argued in chapter three that the natural environment plays an important role in shaping the character of the built environment through responding to its characteristics, such as landform and climate, or in the use of natural resources, as in the example of the Eskimo. In a later stage, after responding to immediate natural environmental pressures, products are transformed into symbols and

they are perceived of as part of the quality of the built environment. An example is the *Rawshan*.

b) *Underlying factors* are defined as those non-tangible factors that can be associated with human life in any society. They include social and cultural life, religion, and patterns of behaviour and economy. They are strong indications of a sustainable urban system. They incorporate various factors that work in harmony to produce environmental and architectural signs and qualities. Consider, for example, the use of the courtyard in some traditional Muslims houses to provide maximum privacy for women as explained in chapter four.

c) The *built environment* is an important means by which people manifest their uniqueness as individuals and as groups. The built environment should be the manifestation of natural environment factors and underlying factors. The meaning which one generation puts into the built environment is necessary for the health of the transformation process. New generations need to be able to understand this meaning in order to make the appropriate decisions for the next stage of cultural evolution.

10.3 Findings of the Case Study (Jeddah)

In this study, three sources of identity of the built environment from which the essential quality of place has been derived are considered: the character of the *natural environment*, the *built environment* and the *underlying factors*. In this sense, a place has a local identity if we can read the people's cultural heritage through it and it has some visible ties with the surrounding context.

The previous chapters describe how Jeddah, as a place, has been dramatically changed either by the inhabitants or by the local authorities. The local authorities set up a master

plan which has been extremely influential in the change of the urban fabric of the city as well as in shaping neighbourhoods and determining the form of the house; they have institutionalised the grid as the most desirable pattern to be followed. It also adopted the automobile as the predominant factor in the planning of the city, and the multi-story apartment building and the villa with the garden yard as the two basic models for residential areas. Also the contact with other societies and cultures, through work (25 per cent of the population are temporary foreign residents), travel and education, as well as the aspirations of the people for a more modern way of life, have influenced the old style built environment. The increase of the wealth of its inhabitants has also led to an individualist approach among people, each person seeking to reflect a highly personalised identity. This can be seen not only in the built environment but also in people's clothes, speech and way of life. Such penetration into all aspects of life reflects the scale of the problem.

10.3.1 Identity Crisis in Jeddah

The identity of the built environment as expressed by Saudis in the case study suffers from two main problems: *discontinuity between past and present* and a *clear split towards either the old or modern identities*. The former, however, is considered to a certain extent to be the cause of the latter. The economic boom following the discovery of oil has caused sudden changes in the operating system of the local environment. Among these sudden changes are the shifting of regulations governing building practice from the Islamic legislation system to civil laws; massive expansion in the built environment; and intensive mixing with foreign cultures. The next sub-section focuses on how the two main problems mentioned above arose, through highlighting the role of each element of the identity and their interrelationships.

10.3.2 Interrelationships Between the Elements Constituting the Identity of Jeddah

This subsection shows how each of the three elements constituting the identity of the built environment interrelates with the other two to produce the current situation. This dismantling of the concept of identify aims at preparing for the following section which makes various recommendations for enhancing the identity of Jeddah for Saudis and to give an understanding of how identity is constructed for the contemporary built environment and for future expansion.

10.3.2.1 The Natural Environment Element

The research supports the conclusion that the architectural fabric of the contemporary city ignored to a huge extent the input of the natural environment on how the built environment should be constructed. Factors of the natural environment such as the climate or local materials were not considered as initial given factors of the site that should direct any manifestation of human need into built forms. For example, the use of materials unsuitable to the climate like glass curtain walls and the increasing use of imported materials, created a gap between the materials used in the traditional city, which were both locally produced and environmentally sensitive and responsive.

The sea as the main natural feature of the city location became an economic symbol as it came to accommodate the main port of the country. It was not considered as a major cause of the high humidity, which should have been considered in design of buildings. So although the reference to the sea in the modern built environment by those interviewed was higher than with respect to the traditional environment, this was not considered to be for environmental reasons, but rather economic reasons. In brief the modern technological inventions supported by the economic wealth of Saudi Arabia and

its people has led the built environment to almost totally disregard the influence of the natural elements on the built environment.

10.3.2.2 The Socio-cultural element (Underlying Factors)

This element played a significant role in affecting the built environment. It contains several factors including economic, social and cultural, and political. Each of these factors has played a role and was sequentially affected by the interrelationship with other factors. The most independent of these factors are the economic as they are the causes of all of the recent changes in Saudi Arabia. The increase in wealth following the discovery of oil caused three major changes as mentioned in 10.3.1 (Identity Crisis in Jeddah). These three factors started to influence social and cultural norms and customs and had a great influence, eventually, on the built environment.

The shifting of regulations governing building practice from the Islamic legislation system to the civil laws was seen as a necessity for the modern practice of building and planning. The reason for the change was mainly the centralised system of political and administrational government that was afforded by the modern legal system as opposed to the Islamic system. This is related to the unification of Saudi Arabia in 1932. There was also the expectation that the new system of planing practice would employ foreign planners and architects to make the plans for what would be the new built environment. Examples of the influence of that factor are the new perception of the need for privacy in modern buildings, which subverted a precondition to any building in the old town, and the decrease in the role of the mosque and its minaret as landmarks in the city, due to their being hidden behind tall buildings not allowed during the period of Islamic building practice.

Deeper involvement with foreign cultures became necessary due to the huge need for skilled labour and an academically qualified workforce to initiate the modern development of the country. Foreign cultures were already in existence in the traditional city due to the Muslims coming for Hajj from all over the world, but their influence on the culture of the city was only slight. Pilgrims would stay in the traditional town for about two or three weeks once a year, and those of them who decide to settle down for a longer were then mixed with the local people, adopting their local customs and norms. In the modern city, foreigners may stay for number of years, though, according to immigration law, they will eventually be required to leave. Because of their sheer number, foreigners form isolated clusters which are not open to the influence of local customs. Conversely, these tend to have a considerable effect on the customs and norms of the local Saudi culture.

The increasing financial ability of the Saudis to travel around the world again brought home the influence of foreign cultures, this time from their point of origin. This influence was clear in the new customs and desires of the local Saudis that they want in their future built environment. For example, the glass curtain walls and the exterior facades in general. That influence extended to the details of the interior of house, such as the dining room, which the sample showed is rarely used.

10.3.2.3 The Built Environment Element

As a result of the economic boom, massive expansion in the built environment was necessary. This massive expansion, as a result of social and cultural changes, was not designed according to the inherited values and norms either in the people or in the traditional built environment. The resulting built environment was then to start playing its role in altering the social environment. The new plans for the extension included

wide streets to facilitate the traffic, but did not consider the social bonds that would be broken by them which crating a cityscape unfit for pedestrians. The plans ignored the existence of gathering places for different purposes between residents. The adoption of an extrovert design for the new houses instead of the traditional introvert design caused many problems between neighbours in respect of the need for privacy, which is central to the Saudi people. Modern planning also reduced the degree of self-administration and therefore decreased security and safety.

10.4 Recommendations

10.4.1 General Recommendations

The findings of the document review and the questionnaire confirm that the definition of identity of the built environment adopted in this study is a complex concept, which grows out of a history of evolving responses to natural, economic, political and cultural forces (see 10.2). However, this study recommends that this definition be tested in other contexts. The ultimate aim is to generalise a universal definition of identity.

The research identifies three elements of identity which, by their interaction, produce the built environment's qualities. However, the findings also identify the significant importance of the role of the city. Despite the author's identification of the role of the city as one of the underlying factors, outstanding scores on the questionnaire suggested that it should be dealt with as an individual element. General recommendations could be given to enhance the process of identity transformation. These recommendations are:

(1) Ensure the continuity of natural and cultural history.

There should be an understanding through the process of building the new that seeks to maintain links with the past in order to enhance the roots of place.

(2) Ensure the locality of place.

There should be an understanding of the essential characteristics of place (its natural environment) and of its patterns and influences.

(3) Enhance the socio-cultural aspects within the built environment.

The designer should be expected to understand the values and behaviour of the people as well as the features and architectural components crucial to these values designing a place.

(4) Increasing people's awareness about their heritage.

Responsibility for revitalisation of heritage should not be confined merely to the professionals, but users need to be urged to co-operate in order to create a meaningful built environment.

(5) People's participation in the design process.

In order to maintain continuity of identity, people themselves should control the process of the development of their environment and not have this imposed from above.

(6) Allow different levels of identities for different units of the society.

People are uniform and there are many levels of differentiation between them. At the design stage people should be allowed to modify the plans for their dwelling places to in accordance with individual or group needs, while keeping within the homogeneity of the place.

10.4.2 Recommendations for the Case Study Specific Context

In the previous sub-section general recommendations for the enhancement of the process of identity transformation were made. This sub-section recommendations to develops the general criteria which can be adopted to enhance the identity specifically of the built environments in Jeddah. These recommendations are organised in tables according to the scale of the built environment under consideration (city, neighbourhood and house).

Recommendations at the level of the city		
Recommendation	**Action**	**Responsibility**
A reorientation in regard to planning and architectural practice must be sought in Jeddah toward maintaining the continuity of identity in the built environment.	Develop a program that adopts natural environment factors and underlying factors as the base of development.	Local authority Professionals University Education
	Increase general public awareness about the importance of the new approach that acknowledges their heritage through the communication media and by education through more general activities.	Communication media Local authority Professionals University Education
	Encourage this approach in the educational courses, such as establishing conservation courses, and encouraging student to adopt this approach in their design.	University Education
	Establish a built environment research centre to do more researches about built environment, the transformation of traditional architecture etc.	Local authority University Education Private Sector
	Landmark buildings should be designed in a way that reflect this approach.	Local authority Investors
Developing building regulations in order to achieve an appropriate built environment that considers the socio-cultural and climatic requirements.	Review and evaluate the existing building regulations concerning set backs, plot size and shape and maximum built- up area, to specify performance rather than effectively prescribing form.	Ministry of Urban and Rural Affairs
	Emphasise human interaction as the basis for defining the physical environment.	Ministry of Urban and Rural Affairs
	Consider number of building and planing qualities in the building regulations such human scale, privacy, legibility, visual comfort, security, safety, noise and public and private spaces hierarchical which are very important to people.	Ministry of Urban and Rural Affairs
The process of change in the environment must be guided rather than permitted to be the guide	Avoid blind imitation of imported architecture and planning methods.	Local authority Professionals
	Use new technologies within the built environment in an appropriate way to allow people to clearly understand and symbolise it. These technologies must be easy to maintain and repair without requiring expertise.	Professionals University Education

Table 10.1: Recommendations at the level of the city

Recommendations at the level of the neighbourhood		
Recommendation	**Action**	**Responsibility**
The layout of the neighbourhood should insure that the social life is enhanced within the neighbourhood and should provide the opportunity for a healthy social environment that encourages religious, cultural, social, physical and recreational activities.	The conflicting requirements of vehicular and pedestrian circulation should be kept in consideration.	Planners Local authority
	The open spaces should be treated as part of neighbourhood to ensure the use of this space for interaction with neighbours.	Planners Local authority
	Arrangement of public and private spaces hierarchy to serve for different activities.	Planners Local authority
	Provide secure environment for children to play.	Planners Local authority
	Develop the role of the neighbourhood figurehead (the Mayor).	Ministry of Social Affairs Community (people)
Build a self-confident, community spirit and encourage residents to believe in their ability to improve their living environment.	Establishing community organisation in each neighbourhood to assist in addressing community needs.	Community (people) Local Authority
	Apply the self-administration system to increase security and safety.	Community (people) Local Authority
	Persuade the community to be more willing to participate in actual projects.	Community (people) representative
The layout of the neighbourhood should facilitate the interaction between people and the natural environment and climate.	Adequate shade should be considered for pedestrians and different activities	Planners
	Consideration of natural landscapes.	Planners
	Consideration of appropriate orientation of streets and buildings	Planners
	Arrangement of meetings and activities of the community in open spaces.	Community Organisation

Table 10.2: Recommendations at the level of the neighbourhood

Recommendations at the level of the house		
Recommendation	**Action**	**Responsibility**
The house should be designed with respect and understanding of the socio-cultural needs of the occupants as well as the new ways of life	Design spaces in a way that enhances family interaction.	Architects Owners
	Ensure family privacy inside and outside the house.	Architects Owners
	Allow compatibility to a modern way of life.	Architects Owners
	Design spaces in a way that fulfils the Saudi people's needs.	Architects Owners
	Ensure that spaces are tailored to fulfil family needs and enable family activities.	Architects Owners
The house should be designed with respect for and understanding of natural environment aspects.	Consideration of orientation.	Architects Owners
	More attention to natural ventilation and lighting in design.	Architects Owners
	Reduce the energy consumption.	Architects Owners
	Use of building materials that suit the climate.	Architects Owners
	Give more attention to the relationship between interior and exterior spaces.	Architects Owners
The exterior of the house should, to a certain extent, express the general identity; it should not be mainly the result of the economic situation of the owner.	Use of architectural elements that reflects the place identity such as Rawshan and parapet denticulation in the traditional city.	Architects Planning authority
	Use of local building materials.	Architects Planning authority
	Give more attention to architectural elements and details in design that respect natural environment factors and socio-cultural factors.	Architects Planning authority
	Apply the principle of simplicity in design.	Architects Planing authority
The interior of the house should, to a certain extent, express the personal identity of the occupant.	Re-assist the function and the necessity of number of spaces within the house such as house yard, balcony and roof.	University Education Architects
	The layout of the house should not be finalised, it should be possible to adjust to the user's evolving needs.	Architect
	Participation of the occupant in the design	Architect Owner

Table 10.3: Recommendations at the level of the house

10.5 A Proposed Design Process

The design process arising from this study suggests that architectural components are physical representations of people and of the natural environment. Each component can be considered as a fragment of the total identity, which helps the designer to identify the positive and negative aspects of each in order to improve them. The aim of this process is to seek unity in the midst of diversity, or order in the midst of complexity. The ultimate task is to fit these multifarious elements into a compact, cohesive and comprehensible scheme. In this sense, the designer must discover the principal means to ensure the communication of identity.

Therefore, in order to produce a building reflecting the identity of a person or a group, the design process should involve four stages:

1. Understanding people's values and culture;
2. Understanding the natural environment;
3. Identifying the architectural components crucial to the identity of the place;
4. Allowing people to participate in the design process

After identifying the constraints that most strongly represent identity, the task of the designer is to decide how they will be utilised in the design. Moreover, there are other constraints which determine the design, including its function, technology, cost, upkeep etc. Therefore, to reach an optimum solution, the designer needs to go through a long and complex process that evaluates and prioritises the different variables that are to be satisfied. This study concludes that it would be more practical to concentrate on some of the constructs at the expense of others depending on their importance in the hierarchy.

From the above discussion, it is worth noting that there is a need to improve the professional architect's working practice in order to maintain continuity in the identity of the built environment. In sum, it is clear that this approach requires professionals to fulfil roles different from their conventional ones in architecture and planning. The starting point for this approach is that participants should have an awareness of the identity of their place and its main characteristics.

10.6 Further Research

Recommendations from this research suggest the importance of the concept of identity in planning and architectural design. The issues related to this subject are wide and varied; this research takes only a first step and is restricted to its own specific objectives and limitations. Therefore, some issues lie beyond its scope and need further investigation. The author would like to suggest some directions for further research that could be continued by colleagues who are similarly concerned about the quality of the built environment of Jeddah.

This study has concentrated on the local identity of the city of Jeddah; further research could examine the expression of national identity of the Kingdom of Saudi Arabia within the built environment and the influence of immigrants from rural to urban areas in changing the built environment's identity. Other research might examine the expression of identity in other Saudi cities and compare the results and findings with Jeddah to test the results of this study. Further research might examine the concept of identity in other places which are not under external influence and where the transformation of identity took its natural course, unlike the case of Jeddah.

For the city of Jeddah a lack of information regarding the quality of the built environment was apparent. During this study, several ideas were developed for future researches where the investigation of the concept of identity could be extended. These included:

- a wider research of Jeddah to find out to what extent the Saudis have the same feelings and understanding about the city's identity
- documentation and indexing information about the characteristics of the built environment in Jeddah and other Saudi cities.

Further research could also be done to find a suitable definition of Saudi family needed for the contemporary social setting, with attention to the family's way of life and expressions of cultural identity, which would seek to clarify possible design concepts that correspond to their needs. Further research might also be carried out on the influence of temporary resident aliens from different social structures and different lifestyles on the identity of the built environment in Saudi Arabia and the Saudis way of life.

10.8 Concluding Remarks

This study has focused on the theme of the identity of the built environment. It has been noted that a meaningful built environment addresses the surrounding nature and the socio-cultural attitude of its people. Indeed, the built environment is not only important in communicating information to others, but also in shaping people's identity. In other words, built environments mediate human interactions. Therefore, places which are different physically and culturally should have different built environments.

The preceding discussions suggest that the concept of identity is not determined by utilitarian factors. Rather it is a product of a system or a process of transformation

which respects and involves the local characteristics of both the environment and the people. In this sense, the embodiment of identity is not driven by problem solving, but it is a holistic approach that generates a built environment with unique features.

To study the identity of a place, it is necessary to throw light on its components. In this context, an interdisciplinary approach to this subject seems better suited to understand the various roles played by elements and some particular factors and their interrelationship.

Moreover, this study shows that our ties with the environment we build and personalise around us have to do with our emotional life because things embody memories, past relationships and achievements in which they reflect parts of our history and respond to our psychological needs. Indeed, symbolic ties and meanings attached to the built environment are numerous and different.

In order to maintain continuity in place identity, the design should respond to people themselves and derive its form from the uniqueness of the natural environment of the place. Accordingly, it was suggested that the planning of new settlements or development of existing ones should be related to the surrounding context and not dealt with independently. In other words, in considering the identity, it is important that no object is seen in isolation from its surrounding context in order to reassert its relations with the existing environment and avoid conflicting messages. Our duty as architectures is to continue the work and logic of previous leaders, to have our local traditions of architecture and planning implemented by modern techniques, and to match these with other needs, allowing environment, religion, climate and culture to be the main guidelines for design.

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APPENDICES

APPENDIX (A) Copy of the Questionnaire
APPENDIX (B) Traditional Jeddah Album
APPENDIX (C) Contemporary Jeddah Album

APPENDIX (A)

HERIOT-WATT UNIVERSITY
EDINBURGH COLLEGE OF ART
SCHOOL OF ARCHITECTURE

QUESTIONNAIRE

Dear respondent,

Your cooperation in this regard would be much appreciated This questionnaire is part of a study that concerns the social and built environment in Jeddah city. Your opinions, explained through this questionnaire, will make a contribution to the course of making the city of Jeddah better in the future. Please fill out the questionnaire as completely as possible. There are no right or wrong answers, we only want your opinions. All information collected will be utilized for academic purposes only.

THANK YOU FOR YOUR COOPERATION

Yasser Ahmed Adas
Postgraduate Research Student

(A) Personal Information

Name:	Interviewer:
Age:	Date of interview:
Sex:	Time start: Time end:
Marital status:	Place of interview:
Educational status:	Number of family members:
Occupation:	Length of stay at Jeddah:
Address:	

(B) The House

(1) In what type of dwelling you lives, please, mention three reasons why you have chosen your current house.

House type_____

(1)_____

(2)_____

(3)_____

(2) Mention two different spaces in your house you think are not necessary or no properly used. For each, space please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3) Mention three aspects you most like about Jeddah traditional hoses. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(4) Mention three aspects you do not like about Jeddah traditional hoses. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(C) The Neighborhood

(5) Mention two things you like in your neighborhood or community.

(1)_____

(2)_____

(6) Mention two things you do not like in your neighborhood or community.

(1)_____

(2)_____

(7) Mention two areas or neighborhood you would like most to live in. For each, area pleas give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(8) Mention two areas or neighborhood you would not like to live in. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(9) Mention three things you would like to have in your neighborhood.

(1)_____

(2)_____

(3)_____

(10) Mention two positive aspects of the past neighborhood you like to see in your current neighborhood. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(D) The City

(11) Mention three important features that give identity to the city of Jeddah. For each, please give two reasons why.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(12) Mention three important features that give identity to the traditional city of Jeddah. For each place give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(13) Mention three streets you like in the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(14) Mention three streets you do not like in the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(15) Mention Two buildings you like in the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(16) Mention two buildings you do not like in the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(17) Mention two places you like to go for recreation. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(18) Mention two places you like to go to for shopping. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(19) Mention two building materials you like most to see being in buildings of the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(20) Mention two building materials you do not like to see in the buildings of the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(21) Mention two changes in the city wish had not happened. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(22) Mention two changes you would like to see in the city in the future. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(23) Mention three important customs or traditions which characterise the city. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(24) Mention two events which are important in the city of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(25) Mention two historical means by which people contributed to the character of the city. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(26) Mention two reasons why people can not contribute to the character of the city nowadays.

(1)_____

(2)_____

(27) Mention three important customs or traditions which characterised the traditional town of Jeddah and you would like to see them in the current city. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(3)_____ a) _____

b) _____

(28) Mention two important changes you would like to see in the old town of Jeddah. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(29) Mention two activities people do usually in their everyday life. For each, please give two reasons.

(1)_____ a) _____

b) _____

(2)_____ a) _____

b) _____

(30) Please give two advantages of traditional architecture.

(1)_____

(2)_____

(31) Please give two disadvantages of traditional architecture.

(1)_____

(2)_____

(32) Please give two advantages of modern architecture.

(1)_____

(2)_____

(33) Please give two disadvantages of modern architecture.

(1)_____

(2)_____

(34) Would you like to say anything more about Jeddah.

_____

_____

_____

_____

_____

_____

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Thank you very much for your help in completing this questionnaire

APPENDIX (B)

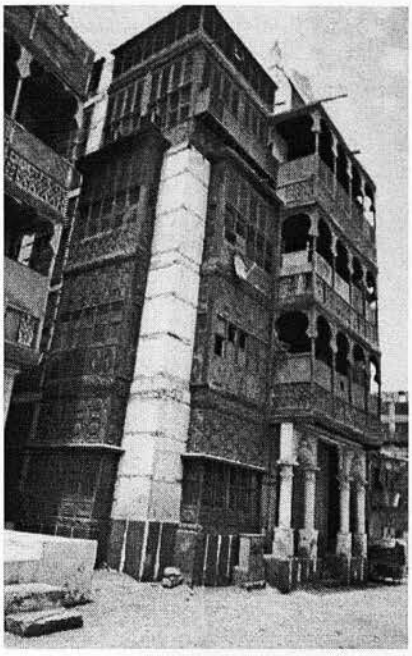

Figure B.1: Al-Shorbatly House

Figure B.2: Baeshen House

Figure B.3: Visits between neighbours

Figure B.4: Qabil Street

Figure B.5: Neighbours daily gathering

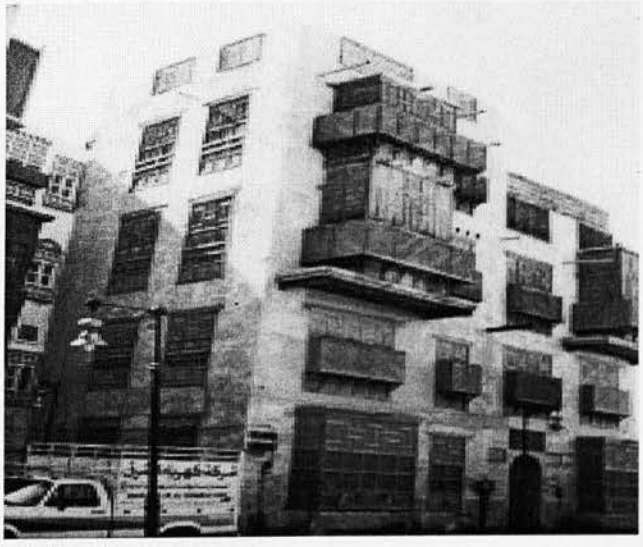

Figure B.6: Excessive use of wooden work

APPENDIX (C)

Figure C.1: Al-Cornish Road

Figure C.2: Al-Amir Fahd Street

Figure C.3: Al-Malek Road

Figure C.4: National Commercial Bank Building

Figure C.5: Sheraton Hotel

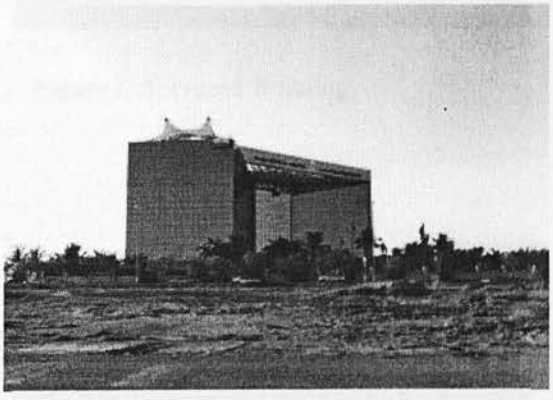

Figure C.6: Saudi Building

Figure C.7: Al-Butat Villas

Figure C.8: Dorat Al-Aroos

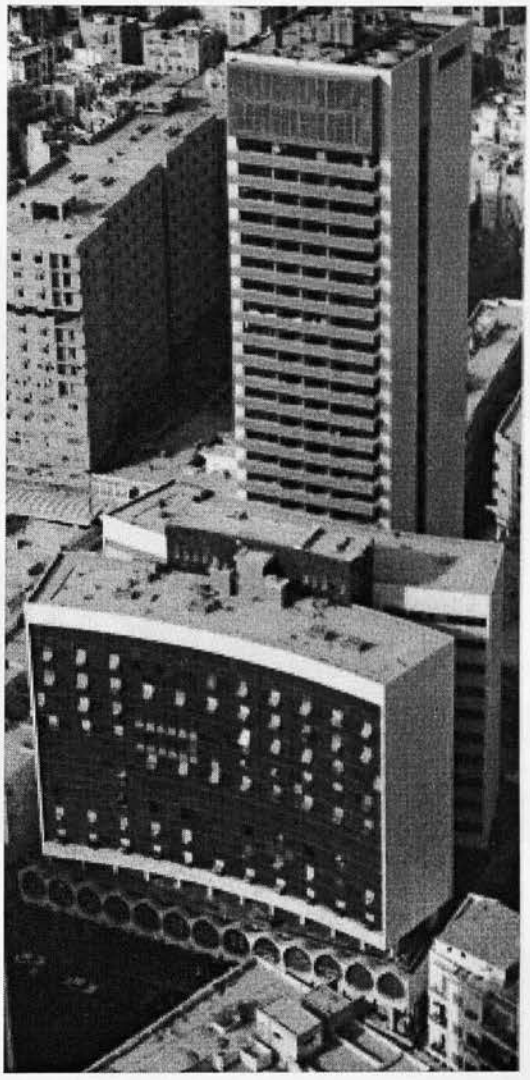

Figure C.9: Queen Building

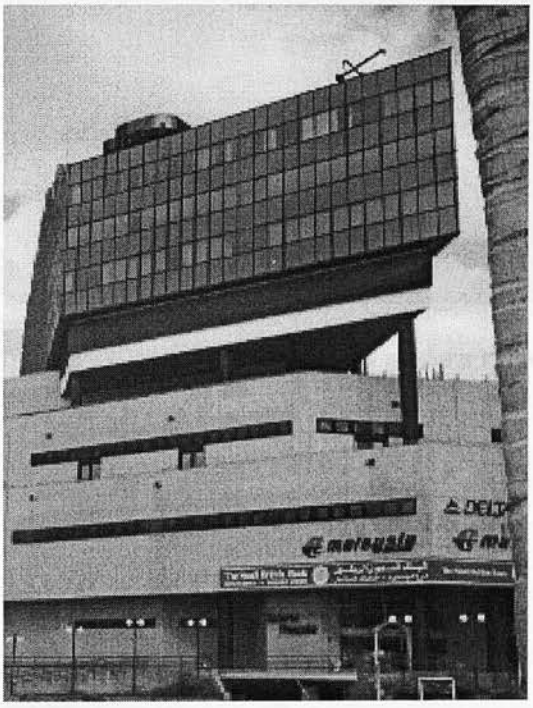

Figure C.10: Al-Jamjoom Center

Figure C.11: King Abdul Aziz International Airport

Figure C.12: Khozam Water Tower

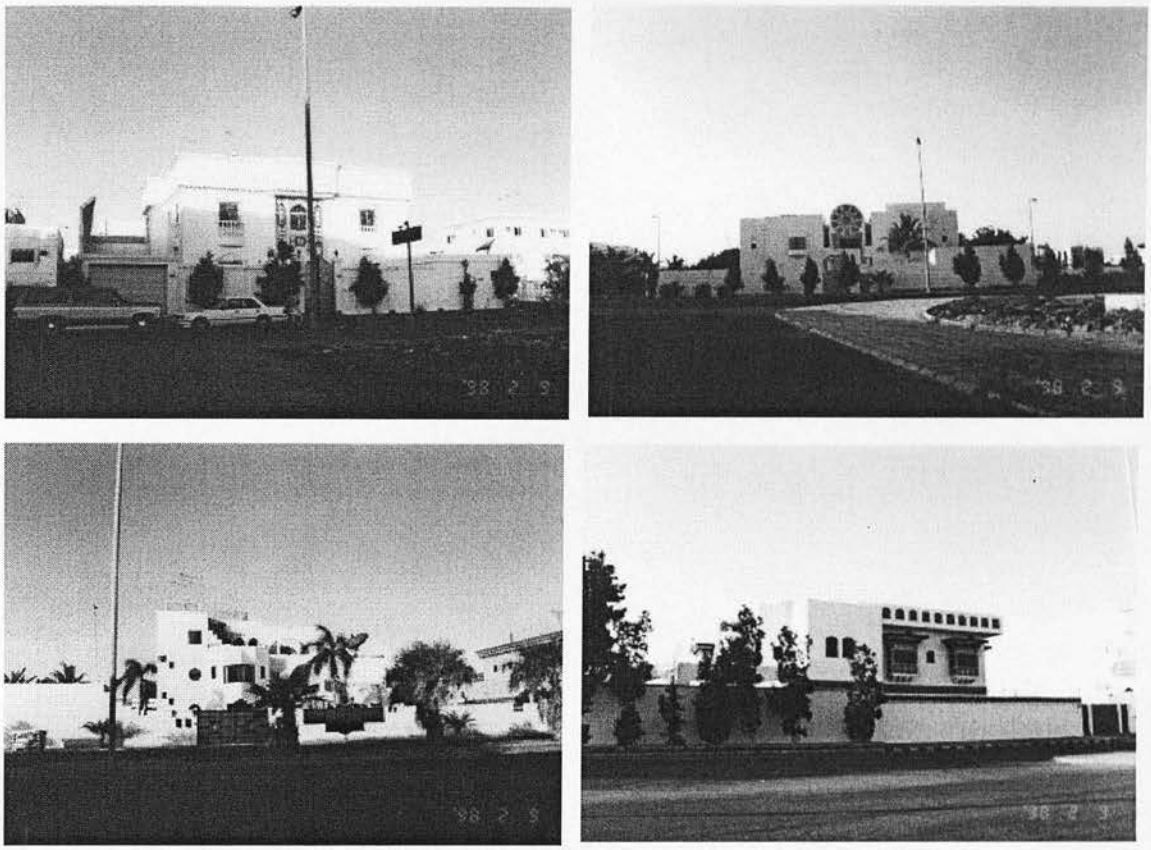

Figure C.13: Different styles of modern villas

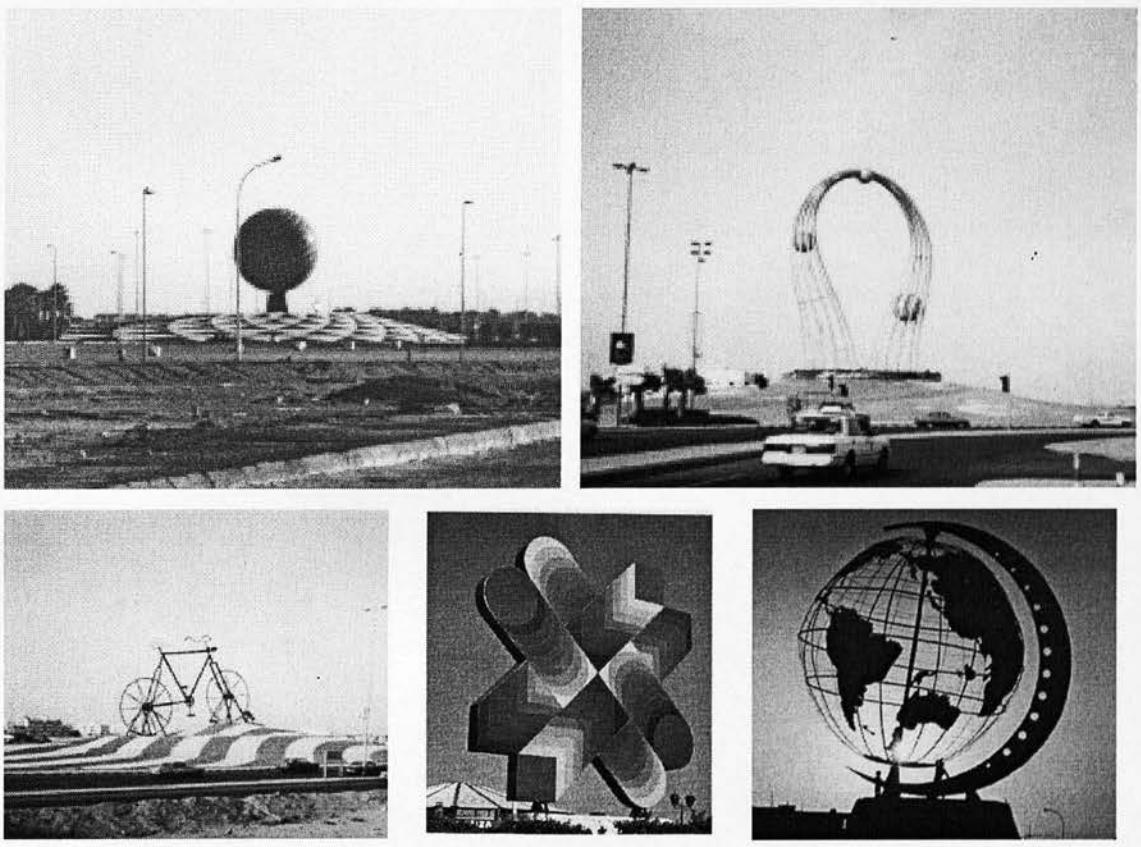

Figure C.14: Different sculptures dominating the image of the contemporary city of Jeddah